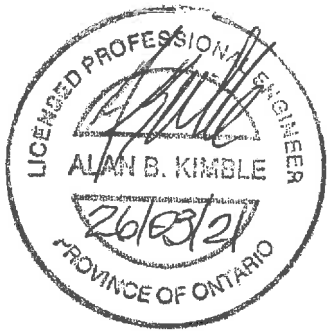
STORMWATER MANAGEMENT DESIGN BRIEF
REACH STREET LANDS
VENETIAN GROUP LTD.
TOWNSHIP OF UXBRIDGE

Prepared for: Venetian Group Ltd.
110 Konrad Crescent, Unit 6
Markham, Ontario
L3R 9X2

Prepared by: Sabourin Kimble & Associates Ltd.
110 Old Kingston Road
Ajax, Ontario
L1T 2Z9

Project No.: 17:386:P1

Date: March, 2021



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1. INTRODUCTION

Sabourin Kimble & Associates Ltd. have been retained by Venetian Group Ltd. to complete a detailed Stormwater Management Design Brief in support of the detailed design for redevelopment of the lands at 231 to 249 Reach Street in the Township of Uxbridge. The subject site is located on the north side of Reach Street just east of Coral Creek Crescent/Testa Road, as shown in Figure 1.0.

The purpose of this report is to provide municipal servicing and stormwater management information to address site storm drainage conveyance and capture and stormwater management for the proposed development.

STUDY AREA

SABOURIN KIMBLE & ASSOCIATES LTD.
CONSULTING ENGINEERS

PROJECT NUMBER	FIGURE NO.
17:386	1

2. MUNICIPAL SERVICES

2.1 Site Grading

As shown in drawings SG-1 through SG-3 specific grading is required to support the development concept. The interior roads have been graded to collect overland flow at a low point adjacent to the proposed woodlot at the northwest limit of the site. The capacity of the downstream storm drainage system has specific flow targets for this site and as such, it is proposed to capture all overland flows within the site and convey them to the outlet via the storm sewer system. Prior to discharge to the downstream receiving storm sewer, the flows will be controlled on-site to the required targets. Further details with respect to on-site overland flow capture and associated stormwater management controls are provided in the following sections of this report.

2.2 Storm Drainage

The storm sewer design for the Estates of Avonlea subdivision to the north, made allowance for external uncontrolled flow (reaching the northwest limit of the subject site) of approximately 0.38 hectares at a runoff coefficient of 0.35. This flow was anticipated to discharge via a rear yard catchbasin from Lot 30 to the Village Green Lane storm sewer. This downstream development has also sized the municipal storm sewers and communal Stormwater Management Pond to accommodate the site using a runoff coefficient of 0.45 and an overall area of 1.65 ha. A servicing block at the northeast corner of the subject site connects to Village Green Lane. The allowable storm discharge from the site was identified as 221 l/s and 414 l/s for the 5 year and 100 year storms respectively as shown on the Avonlea Estates storm drainage boundary plans (Appendix A). Therefore, adequate stormwater management controls must be implemented on the subject site to meet the downstream capacity constraints. The details of those controls are outlined in the following sections.

As shown in drawings SS-1 through SS-3 the entire site will be serviced by a storm sewer system which outlets to the existing 525mm diameter storm sewer on Nelkydd Lane. The internal storm sewers have been sized to convey the 5 year and 100 year storm flows to the outlet of the site. A runoff coefficient of 0.75 for the multi-family residential portion of the site, 0.85 for direct roof connections and 0.25 for the remaining open space plus the external drainage area was applied as per the Township of Uxbridge design criteria. The site storm drainage will be controlled to a

maximum flow of 221 l/s for the 5 year storm and 414 l/s for the 100 year storm as per the requirements of the downstream storm drainage system. Details of the stormwater management controls are provided in Section 4.0 of this report.

Overland drainage from the rear yards adjacent to the existing subdivision and the existing woodlot at the northwest corner will outlet to the existing rear yard catchbasin within the downstream subdivision. The combined coverage and drainage area is equal to that anticipated in the Village Green Lane design as outlined in the supporting design calculations (Appendix B).

A storm sewer design sheet and storm drainage plan have also been provided in Appendix C.

3. STORMWATER MANAGEMENT

3.1 Stormwater Management Criteria

The stormwater management approach for the site must meet the overall stormwater management criteria as established in the LSRCA Technical Guidelines for Stormwater Management Submissions (2016) and the requirements of the Township of Uxbridge as summarized in Table 1.

TABLE 1
OVERALL STORMWATER MANAGEMENT CRITERIA

Control	Criteria
Water Quality	• Enhanced fisheries protection as outlined in the MOE Stormwater Management Practices Planning and Design Manual. • Minimize phosphorous loading according to the Lake Simcoe Protection Plan and offset any increases in phosphorous loading in keeping with the Lake Simcoe Phosphorous Offsetting Program (2017).
Erosion Control	• As outlined in the Uxbridge Brook Watershed Plan (February 1997) the extended detention of the 40mm storm runoff for a minimum of 24 hours.
Water Quantity	• Control post development flows to pre-development levels for the 2 through 100 year storms. • As per the downstream subdivision design, control the site discharge to the downstream storm sewer to 221 l/sec for the 5 year design storm and 441 l/sec for the 100 year design storm. • Maintain or reduce the equivalent discharge to the rear yard catchbasin at existing lot 30 (downstream subdivision) to the area and coverage provided in the storm sewer design. • Control stormwater runoff volumes such that, the post-construction runoff volume shall be retained on site from runoff of the first 25 mm of rainfall from all impervious surfaces on the site. • Maintain safe conveyance of flows to sufficient outlets without negative impacts on adjacent properties.
Water Balance	Maintain the pre-development water balance under post development conditions.

3.2 Stormwater Management Concept

The stormwater management approach has been developed to reflect the Stormwater Management Guidelines outlined in Table 1 and the infiltration capacity of the site. The on-site soils are predominately sand with high infiltration capabilities (refer to section 3.3). Therefore, it is proposed to infiltrate a volume equivalent to the 40mm storm runoff from all impervious surfaces. It is proposed that these works will adequately address the overall stormwater management criteria for water quality control, erosion control and the runoff volume control as outlined in Table 1. Additional water quantity storage will be provided to adequately address the limited capacity of the downstream receiving system. The entire system has also been reviewed by Palmer Environmental as it relates to site water balance and phosphorous loading (a summary of that assessment is provided in section 3.6).

Infiltration galleries combined with perforated storm sewers plus rear yard infiltration swales will provide sufficient infiltration capacity as shown in drawings SS-1 through SS-3. Specific and distinct infiltration systems will be provided throughout the site as shown in SD-3. When the infiltration capacity is reached, rear yard LID areas 1, 2, 4 and 5 will overflow into the perforated storm sewer system for additional controls. Rear yard LID area 3 will outlet to the existing woodlot when the infiltration capacity is reached. The internal perforated pipe system plus the centralized facility are completely linked and dendritic in nature to provide adequate infiltration capacity for the remainder of the site. The infiltration capabilities of the granular cisterns will be supplemented by extra depth topsoil (0.3 m minimum) on all lawn and landscaped areas. Roadway catchbasins have been strategically located to maximize contributions from rooftops and rear yard/landscape areas. All road drainage will be pre-treated through an oil/grit separator prior to discharge to any infiltration facilities.

Flows in excess of the 40mm runoff event up to the 100 year storm event will be controlled for water quantity purposes by orifice plates located in the downstream most manhole. The water quantity storage volume will be provided in a portion of the contributing storm sewer system plus three centralized open bottom underground ADS storage chamber systems situated at strategic locations within the site.

Allowable release rates, post development flows and runoff volumes have been evaluated at the site outlet. The technical details of the proposed stormwater management system are provided in the following sections.

3.3 Supporting Study

In March, 2019, Palmer Environmental Consulting Group Inc. completed a detailed hydrogeologic investigation on the site which included six (6) boreholes with three (3) monitoring wells. Boreholes were drilled to depths of up to 8.0 metres. Through the monitoring period the boreholes and monitoring wells remained dry. As a result, the monitoring was expanded to include five (5) existing private wells located within the site boundary. Monitoring of these wells concluded that the ground water levels were between 10 and 15 metres below existing ground elevations. The monitoring is on-going and will be updated as the development process proceeds. These ground water elevations were monitored over the course of one (1) year and were considered to be stable with very little fluctuation. The report identified that seasonal variations of 0.2-0.4 metres may be expected.

A representative percolation rate was determined empirically based on the geometric mean of hydraulic conductivity valuations for two (2) locations within the site. The empirical calculation was supported by field testing utilizing the Guelph Permeameter in five (5) different test locations. The resulting representative infiltration rate was determined to be 72 mm/hr and was subject to a safety factor of 2.5. Therefore, a percolation rate of 28.8 mm/hr was utilized in the design of the LID system.

A detailed summary of the hydrogeologic investigation and findings is provided in the Palmer report provided under separate cover.

3.4 Stormwater Quality/LID Controls

Water quality and infiltration facilities have been distributed throughout the site as shown in SD-3, Runoff from 50% of the roof area within rear yard LID areas 1 through 5 will be directed to the surface at the rear of each housing unit. This runoff will combine with overland flow from the rear yards and discharge to swales located along rear property line. The flow from the swales will be captured by rear yard catchbasins and discharged into a granular trench located beneath

the swale. The granular trenches have been designed with sufficient storage volume to accommodate the equivalent of 40mm of runoff from the contributing roof areas. Sufficient contact area has been provided to accommodate draindown of the storage volume within a 24 hour period. An overflow outlet will be provided on each granular gallery should they become full. Rear yard LID areas 1, 2, 4, and 5 will overflow into the storm sewer system within the road for further water quantity control. Rear yard LID area 3 will overflow into the woodlot located at the northwest limit of the site. A detail of the rear yard LID system is provided in drawing SD-3

The remainder of the site will contribute runoff to an internal perforated storm sewer and centralized storage facility with sufficient granular storage capacity to accommodate 40mm of runoff from the remaining roof areas and all of the surface impervious areas (roadways and driveways). Granular galleries will be provided at the bottom of the perforated sewers and under the centralized storage area. The galleries are proposed in a dendritic fashion following the storm sewer routing such that continuous storage volume is always available. It is proposed that the remaining front roof areas (50%) of the units adjacent to rear yard LID's plus 100% of the remaining roof areas be directly connected to the perforated storm sewer system. Road drainage will be captured via catchbasins in a conventional manner with pre-treatment of the flows with strategically located oil/grit separators. The granular galleries under the roadway have been designed with sufficient contact area to ensure a draindown time of 24 hours. The centralized open bottom facility has been designed in four (4) locations. The draindown time of the granular under the main centralized open bottom facility is 48 hours. A detail of the perforated storm sewer granular galleries is provided in drawing SD-3

The contributing drainage areas and corresponding storage volumes are summarized in Table 2.

TABLE 2
ON-SITE WATER QUALITY/INFILTRATION VOLUMES

Drainage Area	Total Contributing Drainage Area (ha)	Total Impervious Area (ha)	Required Storage Volume (m^3)	Storage Volume Provided (m^3)
*Rear Yard LID 1	0.14	0.10	42.0	41.5
**Rear Yard LID 2	0.30	0.23	90.0	91.8
Rear Yard LID 3	0.11	0.08	33.0	33.2
Rear Yard LID 4	0.06	0.04	17.0	13.8
Rear Yard LID 5	0.08	0.06	25.4	16.9
Perforated Storm Sewers &Central Facility	1.93	1.51	600.6	610.8

**External area contributing to the LID but not included in the calculation is 1.0 ha from outside of subject property.*
***External area contributing to the LID but not included in the calculation is 0.83 ha of woodlot from within subject site and 0.44 ha from outside of the subject site.*

Calculations in support of the water quality/infiltration design are enclosed in Appendix D.

3.5 Stormwater Quantity Controls

It is assumed that the water quality/infiltration works provided will adequately address all water quality and erosion control requirements for the site. Any flow in excess of these systems will be conveyed by the storm sewers to water quantity control orifice plates located in manhole 24. All major system flows will be captured into the storm sewer system on-site and will also be conveyed to manhole 24. The surface flow capture analysis is summarized in section 3.7.

Initially, the extended rational method was utilized to determine the storage volume required to meet the downstream flow requirements. The combination of a 219mm and 379mm diameter orifice plate at different elevations was determined to control the discharge from the developed area such that post development flows meet the 5 year storm flow target of 221 l/s and the 100 year storm flow target of 414 l/s. The orifice plate controls result in a maximum 100 year storm storage volume of 679 cubic metres at a maximum ponding elevation of 279.30 metres. The storage volume will be provided within the storm sewers and in a ADS Storm Chamber open

bottom storage systems located strategically within the site. The resultant storage volume and ponding elevations for each return period storm are summarized in Table 3.

TABLE 3
ON-SITE WATER QUANTITY STORAGE VOLUMES

Storm	Maximum Water Surface Elevation (m)	Peak Discharge Rate (m^3/s)	Storage Volume in Storm Sewer System (m^3)	Storage Volume in ADS Storm Chamber System (m^3)	Total Storage Volume (m^3)
5 year	278.30	0.088	29	164	193
100 year	279.30	0.414	87	592	679

Calculations in support of the water quantity control system are enclosed in Appendix E.

3.6 Confirmation of Existing Stormwater Management Pond Operation

The post development hydrologic model for the Estates of Avonlea subdivision was utilized to confirm that the storage and flow controls provided on the site would not alter the operation of the downstream stormwater management facility. The subject site and associated storage characteristics as summarized in the previous sections were inserted into the hydrologic model for the Avonlea SWM facility and the results of that evaluation are summarized in Table 4.

TABLE 4 HYDROLOGY MODEL OUTPUT SUMMARY ESTATES OF AVONLEA SWM FACILITY				
Storm Event	**Required Volume (m^3)**	**Target Peak Flow (m^3/s)**	**Resultant Volume (m^3)**	**Resultant Peak Flow (m^3/s)**
5 Year	3,757	0.16	3,680	0.14
25 Year	4,946	0.50	4,907	0.48
50 Year	5,416	0.67	5,397	0.66
100 Year	5,912	0.86	5,919	0.86

As shown in Table 4, the on-site storage provided does not impact the operation of the existing Estates of Avonlea stormwater management. Details of the Estates of Avonlea stormwater management pond review are provided in Appendix B.

3.7 Surface Flow Capture Assessment

The OTTSWM hydrologic model was utilized to determine the infrastructure required to safely capture the 100 year flow from the site into the storm sewer/storage system. The evaluation examined the runoff generated from the site, the ability of the roadways to pass the overland flow and the capture capabilities of on-site catchbasins. All localized low points were evaluated to ensure that adequate capture occurs and any resultant surface ponding does not impact any residential units.

The evaluation determined that three (3) additional double catchbasins will be required at the internal low point located at the northeast limit of the site. With this additional infrastructure, the 100 year storm overland flow will be safely captured by the storm sewer/storage system.

A complete summary of the OTTSWMM analysis is provided in Appendix F.

3.8 Water Balance and Phosphorus Assessment

Palmer Environmental Consulting Group completed a detailed assessment of water budget and phosphorus generation for the site under existing and proposed conditions. Each assessment evaluated the effectiveness of the proposed LID's in maintaining water balance for the site and reducing phosphorus generation.

The pre-development and post development water budget was completed for the overall study area using a monthly soil-moisture balance approach (Thornthwaite and Mather, 1957). The water balance calculations estimate average annual evapotranspiration (evaporation and plant transpiration) using factors such as monthly precipitation, temperature and latitude. The average available water surplus, which is the water available for infiltration and runoff purposes, was calculated by subtracting the average annual evapotranspiration from the average annual precipitation. Based on soil conditions at the site, a soil moisture retention value of 150 mm was utilized to represent the soil type and vegetation cover. The resulting annual water surplus was then partitioned using infiltration coefficients based on MOEE (1995) and modified based on site specific conditions. This approach takes into consideration three factors: topography/slope, soil type, and land cover, which are summed to provide a representative infiltration factor for the area.

The pre-development water budget resulted in total runoff of 3,087 m^3/yr and total infiltration of 10,451m^3/yr. Under post development conditions, the provision of the proposed LID works results in total runoff of 3,899 m^3/yr and total infiltration of 19,044 m^3/yr. The provision of the distributed LID works throughout the site result in a slight increase in site runoff and a net increase in infiltration of approximately 82%.

The Lake Simcoe Phosphorus Offsetting Program (LSPOP) requires that all new developments must control 100% of the phosphorus from leaving their property. Based on the Lake Simcoe Region Conservation Authority (LSRCA) Phosphorus Offsetting Policy and the MECP Phosphorus Budget Tool (V2.0 Release Update – March 30, 2012) PECG estimated the pre- and post-development phosphorous budget for the site.

Based on the existing cover for the site, the pre-development phosphorus load was calculated to be 0.35 kg/yr. Palmer evaluated the effectiveness of the proposed distributed infiltration works for the site including an twelve (12) month construction period and determined that the total post development phosphorus loading would be 0.22 kg/yr. This represents a 39% reduction in phosphorus loading under post development conditions.

The detailed calculations and finding are contained with the Hydrogeological Assessment which has been provided under separate cover.

4. EROSION AND SEDIMENTATION CONTROL MEASURES

During construction of any portion of the subject lands adequate erosion and sedimentation controls must be implemented to safeguard them against potential impacts. In support of the detailed design for this development proposal, a comprehensive construction erosion and sedimentation control plan has been prepared. This plan includes the provision of the following works as outlined in drawings ESC-1 through ESC-5:

- Sediment control fencing around the perimeter of the site including double sediment fence with an intermediate straw bale installation adjacent to all existing sensitive natural features,
- Construction mud mat at the designated entrance to the site,
- Silt sacks on all road catchbasins,
- Catchbasin sediment traps on all rear yard catchbasins,
- Removal of all topsoil from the site for the duration of underground and house construction
- Strategic review protocol for all sediment control works during the construction period.

Sedimentation control practices will be implemented for all construction activities within the Study Area, including tree removal, topsoil stripping, underground sewer construction, road construction and house construction. Sedimentation control measures are to be installed and operational prior to any construction activity, and are to remain in place until such time as the residential dwellings are constructed and the lot grading complete with established sod.

5. CONCLUSIONS

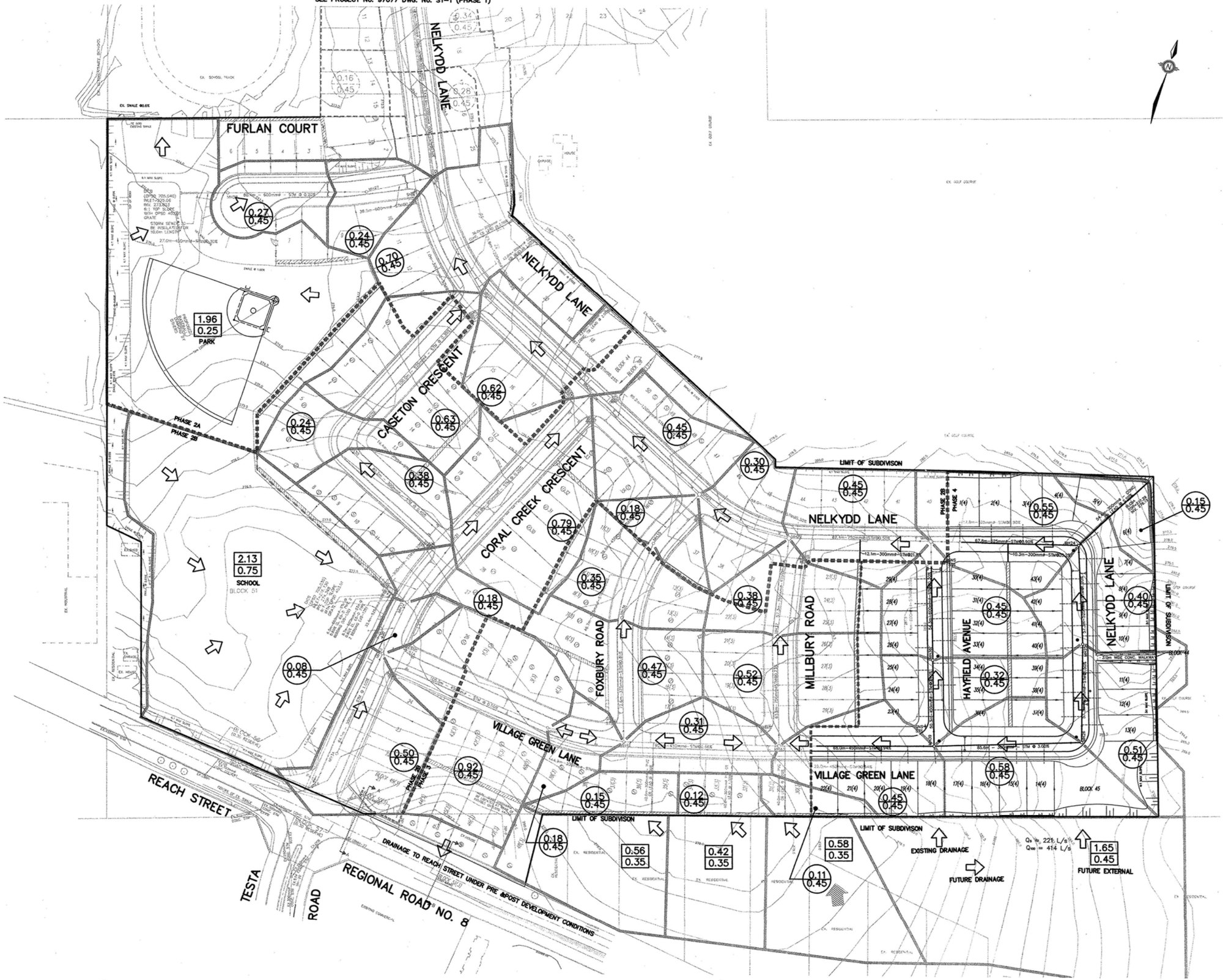
Based on the findings of this Stormwater Management Design Brief, the following conclusions were reached:

- The subject lands should be developed as townhouse residential land use,
- The style of development requires specific grading that may be accommodated on this site,
- The proposed infiltration works and the existing soil characteristics provide sufficient capacity to retain and infiltrate the runoff volume from a 40mm design storm over the contributing impervious area,
- The water quantity storage system provided will control post development flows to specific flow targets at the site outlet,
- Appropriate infrastructure has been provided to capture and control the 100 year storm flows from the site to allowable rates,
- The on-site stormwater management works are sufficient to ensure that the downstream stormwater management facility located within the Estates of Avonlea subdivision will continue to operate as designed
- The proposed LID program will be effective in maintaining the post development to pre-development water balance and will result in a lower phosphorus

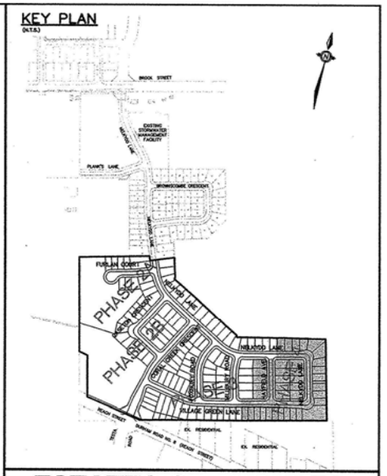
APPENDIX A

Existing Avonlea Storm Design

SEE PROJECT No. 97077 DWG. No. ST-1 (PHASE 1)



KEY PLAN



ESTATES OF AVONLEA
PHASE 4

LEGEND

- PROPOSED STORM SERVICE
- 0.35 / 0.45 — DRAINAGE AREA (Ha) / RUNOFF COEFFICIENT
- 0.87 / 0.45 — EXTERNAL DRAINAGE AREA (Ha) / EXTERNAL RUNOFF COEFFICIENT
- MAJOR SYSTEM
- UNITS WITH WEEPING TILE SUMP AND SUMP PUMP DISCHRGING TO SPLASHPAD IN SIDEYARD

ISSUED FOR CONSTRUCTION

NOTE:
ORIFICE PLATES TO BE INSTALLED ON ALL STREET CATCHBASIN LEADS IN PHASES 2,3 &4. ORIFICE PLATES TO BE SCEPTER TYPE 'A' OR APPROVED EQUAL. REFER TO DETAIL ON DRAWING CD-1.

NO.	REVISION	DATE	BY	APPROVED
4.	PHASE 4 FINAL SUBMISSION	07/09	E.G.	
3.	PHASE 4 THIRD SUBMISSION	06/09	F.W.	
2.	PHASE 4 SECOND SUBMISSION	03/09	F.W.	
1.	PHASE 4 FIRST SUBMISSION	01/09	F.W.	

REVISIONS

ACCEPTED TO BE IN GENERAL CONFORMANCE WITH THE TOWNSHIP OF UXBRIDGE STANDARDS. THIS ACCEPTANCE IS NOT TO BE CONSTRUED AS VERIFICATION OF ENGINEERING CONTENT.
AECOM Canada Ltd.
DATED: Aug 11, 2009

CORPORATION OF THE TOWNSHIP OF UXBRIDGE

CORAL CREEK HOMES

STORM DRAINAGE PLAN

18T-99009

BURNSIDE
R.J. Burnside & Associates Limited
170 Steelwell Road, Suite 200, Brampton, Ontario
telephone (905) 793-9239 fax (905) 793-0018
web www.rjburnside.com

LICENSED PROFESSIONAL ENGINEER — E. GROSKOPFS — Jul 29/09 — PROVINCE OF ONTARIO

SCALE:	1:1000
DRAWN BY:	F.W.
DESIGNED BY:	F.W.
CHECKED BY:	E.G.
DATE:	JUNE 2009
PROJECT NO.	PTB-11727
DRAWING NO.	ST-1

TOWNSHIP OF UXBRIDGE

STORM SEWER DESIGN SHEET - MINOR SYSTEM

CORAL CREEK HOMES - PHASE 4

CALCULATED BY: F.W. DATE: JUNE 2009

CHECKED BY: E.G. DATE: JUNE 2009

PROJECT NO.: 02-3956 SHEET 1 OF 3

STREET	UP STREAM		DOWN STREAM		SECTION			CUMULATIVE	INTENSITY	FLOW	PIPE					CONC.	TOTAL
					AREA	COEFF.	AxR	AxR	I_5	Q_5	LENGTH	SIZE	GRADE	CAP.	VEL.	TIME	TIME
	MH	INVERT	MH	INVERT	(ha)				(mm/s)	(l/s)	(m)	(mm)	(%)	(l/s)	(m/s)	(min.)	(min.)
																	10.00
* Nelkydd Lane	FUT	279.19	26	277.320	1.65	0.45	0.743	0.743	107.01	221	196.7	525	0.40	284	1.27	2.58	12.58
Nelkydd Lane	26	277.290	25	276.430	0.51	0.45	0.230	0.972	94.42	255	57.3	525	1.50	549	2.46	0.39	12.97
Nelkydd Lane	25	276.400	24	275.710	0.40	0.45	0.180	1.152	92.81	297	57.3	525	1.20	491	2.20	0.43	13.40
																	10.00
	RLCB4	276.120	24	275.850	0.15	0.45	0.068	0.068	107.01	20	54.4	300	0.50	71	0.98	0.93	10.93
Nelkydd Lane	24	275.620	23	274.854	0.55	0.45	0.248	1.467	91.08	371	85.6	525	0.90	426	1.90	0.75	13.40
																	10.00
Village Green Lane	26	277.920	39	275.350	0.58	0.45	0.261	0.261	107.01	78	85.6	300	3.00	175	2.39	0.60	10.60
Hayfield Avenue	39	275.250	38	274.950	0.32	0.45	0.144	0.405	103.77	117	50.3	450	0.60	230	1.40	0.60	11.19
Hayfield Avenue	38	274.920	23	274.712	0.45	0.45	0.203	0.608	100.74	170	68.7	600	0.30	351	1.20	0.95	12.15
																	13.40
Nelkydd Lane	23	274.562	22	274.151	0.45	0.45	0.203	2.277	91.08	576	82.4	750	0.50	820	1.80	0.76	14.17
																	10.00
					0.15	0.45	0.068	0.068									
	RLCB3		42		0.56	0.35	0.196	0.264	107.01	78	40.0	300	1.00	101	1.38	0.48	10.48
					0.12	0.45	0.054	0.054									
	RLCB2		42		0.42	0.35	0.147	0.201	107.01	60	40.0	300	1.00	101	1.38	0.48	10.48
Village Green Lane	42	275.385	43	274.790	0.31	0.45	0.140	0.604	104.37	175	90.1	450	0.66	242	1.47	1.02	11.50
																	10.00
					0.11	0.45	0.050	0.050									
	RLCB1		43		0.58	0.35	0.203	0.253	107.01	75	40.0	300	1.00	101	1.38	0.48	10.48
Village Green Lane	39	275.710	43	274.863	0.19	0.45	0.086	0.338	104.37	98	90.0	450	0.94	288	1.76	0.85	11.34
Millbury Road	43	274.595	37	274.448	0.52	0.45	0.234	1.176	100.05	327	63.9	750	0.23	557	1.22	0.87	12.37
Millbury Road	37	274.294	22	274.150	0.38	0.45	0.171	1.347	95.31	357	57.3	750	0.25	582	1.28	0.75	13.12
																	14.17
Nelkydd Lane	22	273.807	21	273.630	0.30	0.45	0.135	3.759	88.21	921	59.0	1050	0.30	1560	1.75	0.56	14.73
																	10.00
Foxbury Road	42	275.450	36	274.864	0.47	0.45	0.212	0.212	107.01	63	72.6	375	0.81	164	1.44	0.84	10.84
Foxbury Road	36	274.784	35	274.550	0.35	0.45	0.158	0.369	102.51	105	46.7	375	0.50	129	1.14	0.69	11.52
Foxbury Road	35	274.408	21	274.210	0.18	0.45	0.081	0.450	99.15	124	39.6	450	0.50	210	1.28	0.52	12.04

R = 0.45 (Single Family-Urban) / 0.75 (Townhouses & School)

$I_5 = 904/(T+5)^{0.788}$ Rational Formula $Q=2.78AIR$ Limit of flow velocity = 0.75m/s < V < 4.5m/s

*Allowable Peak Flow From 241 Reach Street

TOWNSHIP OF UXBRIDGE

STORM SEWER DESIGN SHEET - 100-YEAR

CORAL CREEK HOMES - PHASE 4

CALCULATED BY: F.W. DATE: JUNE 2009

CHECKED BY: E.G. DATE: JUNE 2009

PROJECT NO.: 02-3956 SHEET 1 OF 3

STREET	UP STREAM		DOWN STREAM		SECTION			CUMULATIVE	INTENSITY	FLOW	PIPE					CONC.	TOTAL
					AREA	COEFF.	AxR	AxR	I_{100}	Q_{100}	LENGTH	SIZE	GRADE	CAP.	VEL.	TIME	TIME
	MH	INVERT	MH	INVERT	(ha)				(mm/s)	(l/s)	(m)	(mm)	(%)	(l/s)	(m/s)	(min.)	(min.)
																	10.00
* Nelkydd Lane	FUT	279.190	26	277.320	1.65	0.56	0.928	0.928	200.63	517	196.7	525	0.40	284	1.27	2.58	12.58
Nelkydd Lane	26	277.290	25	276.430	0.51	0.56	0.287	1.215	176.41	595	57.3	525	1.50	549	2.46	0.39	12.97
Nelkydd Lane	25	276.400	24	275.710	0.40	0.56	0.225	1.440	173.32	693	57.3	525	1.20	491	2.20	0.43	13.40
																	10.00
	RLCB4	276.120	24	275.850	0.15	0.56	0.084	0.084	200.63	47	54.4	300	0.50	71	0.98	0.93	10.93
Nelkydd Lane	24	275.620	23	274.854	0.55	0.56	0.309	1.834	170.00	866	85.6	525	0.90	426	1.90	0.75	13.40
																	10.00
Village Green Lane	26	277.920	39	275.350	0.58	0.56	0.326	0.326	200.63	182	85.6	300	3.00	175	2.39	0.60	10.60
Hayfield Avenue	39	275.250	38	274.950	0.32	0.56	0.180	0.506	194.40	273	50.3	450	0.60	230	1.40	0.60	11.19
Hayfield Avenue	38	274.920	23	274.712	0.45	0.56	0.253	0.759	188.57	398	68.7	600	0.30	351	1.20	0.95	12.15
																	13.40
Nelkydd Lane	23	274.562	22	274.151	0.45	0.45	0.203	2.796	170.00	1320	82.4	750	0.50	820	1.80	0.76	14.17
																	10.00
					0.15	0.45	0.068	0.068									
	RLCB3		42		0.56	0.35	0.196	0.264	200.63	147	40.0	300	1.00	101	1.38	0.48	10.48
					0.12	0.45	0.054	0.054									
	RLCB2		42		0.42	0.35	0.147	0.201	200.63	112	40.0	300	1.00	101	1.38	0.48	10.48
Village Green Lane	42	275.385	43	274.790	0.31	0.45	0.140	0.604	195.55	328	90.1	450	0.66	242	1.47	1.02	11.50
																	10.00
					0.11	0.56	0.062	0.062									
	RLCB1		43		0.58	0.44	0.254	0.316	200.63	176	40.0	300	1.00	101	1.38	0.48	10.48
Village Green Lane	39	275.710	43	274.863	0.19	0.56	0.107	0.423	195.55	230	90.0	450	0.94	288	1.76	0.85	11.34
Millbury Road	43	274.595	37	274.448	0.52	0.45	0.234	1.261	187.23	656	63.9	750	0.23	557	1.22	0.87	12.37
Millbury Road	37	274.294	22	274.150	0.38	0.45	0.171	1.432	178.12	708	57.3	750	0.25	582	1.28	0.75	13.12
																	14.17
Nelkydd Lane	22	273.807	21	273.630	0.30	0.45	0.135	4.362	164.49	1993	59.0	1050	0.30	1560	1.75	0.56	14.73
																	10.00
Foxbury Road	42	275.450	36	274.864	0.47	0.45	0.212	0.212	200.63	118	72.6	375	0.81	164	1.44	0.84	10.84
Foxbury Road	36	274.784	35	274.550	0.35	0.45	0.158	0.369	191.97	197	46.7	375	0.50	129	1.14	0.69	11.52
Foxbury Road	35	274.408	21	274.210	0.18	0.45	0.081	0.450	185.50	232	39.6	450	0.50	210	1.28	0.52	12.04

R = 0.45 (Single Family-Urban) / 0.75 (Townhouses & School)

$I_{100} = 1799/(T+5)^{0.810}$ Rational Formula $Q=2.78AIR$ Limit of flow velocity = 0.75m/s < V < 4.5m/s

*Allowable Peak Flow From 241 Reach Street

APPENDIX B

Avonlea Storm Pond Analysis

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241 Reach St. Uxbridge

Quantity Control Analysis - External Drainage Conditions

Existing Drainage Conditions to External Lands	Area (Ha)	Runoff Coefficient	AR
Drainage Area to Village Green Lane Accounted For By R.J, Burnside	0.58	0.35	**0.203**
Area of R.J. Burnsides AR Estimate Which is Applicable to The Site Area	0.38	0.35	**0.133**

Refer to Storm Drainage Plan in Appendix A, Drawing No ST - 1 by R.J. Burnside & Associates Limited

Proposed Drainage to External Lands	Area (Ha)	Runoff Coefficient	AR
Undeveloped runnoff	0.15	0.25	0.038
Developed runnoff	0.11	0.75	0.083
Total Area	0.26	Total AR=	**0.120**

Therefore, proposed AR is less than the original Estimate from R.J. Burnside & Associates.

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241 Reach St. Uxbridge
CN CALCULATION FOR HYDROLOGIC MODELLING

Lot Impervious Breakdown

Unit Type	0	Asphalt + curb (m)	S/W (m)	Lot Area (m^2)	Impervious (m^2)	Total Unit Area (m^2)	Total Unit Impervious (m^2)	Total Unit XImpervious (m^2)	No. Lots	TIMP	XIMP
A	0.0	6.5	0.0	321.9	209.0	359.2	246.3	70.7	12	69%	20%
C	0.0	6.5	0.0	251.4	177.3	277.7	203.6	59.9	4	73%	22%
E	0.0	6.5	0.0	254.5	184.5	280.8	211.3	61.1	14	75%	22%
A	10.8	6.5	1.5	321.9	209.0	375.4	262.5	86.9	25	70%	23%
C	7.6	6.5	1.5	251.4	177.3	289.1	215.0	70.9	7	74%	25%
E	7.6	6.5	1.5	254.5	184.5	292.2	222.2	72.5	0	76%	25%
								Avg/Total	**62**	**72%**	**22%**

Based on the architectual Site Plan provided by Hunt Design Associates Inc.

Catchment Description	Total Area (ha)	TIMP	XIMP	CN (NASHYD)	Combined Total Area	Combined TIMP	Combined XIMP	Combined CN	Applicable Hydrograph
Residential Units+ROW	2.24	72%	22%	*77*	2.49	0.69	0.23	75.09	StandHyd
Proposed Parking	0.08	100%	100%	*98*					
Snow Storage/ Extra Grassed Area	0.17	20%	0%	*39*					
LSRCA Woodlot	0.83	20%	0%	*36*	2.27	0.20	0.00	62.01	NasHyd
External Drainage Area	1.44	20%	0%	*77*					

Total area= 4.76
site area= 3.32

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241 Reach St. Uxbridge
Hydrologic Model Summary

Runoff Volume Summary (Model Verification)

Hydrograph Area (ha)	100 Year Runoff Volume - Burnside (mm)	100 Year Runoff Volume – SKA (mm)
17.39	41.243	41.24
13.00	22.555	22.55
1.00*	57.577	57.53
6.26	42.797	42.80

*Cannot input '0.0' as slope in Visual OTTHYMO

Peak Flow Summary

Storm	Pre-Development	"Ultimate" Model (Burnside)		"Ultimate" Model (SKA)		Post-Development Model (SKA)	
	Peak Flow (cms)	Peak Flow (cms)	Volume (m^3)	Peak Flow (cms)	Volume (m^3)	Peak Flow (cms)	Volume (m^3)
5 Year	0.35	0.16	3757	0.16	3746	0.14	3679
25 Year	0.62	0.50	4946	0.50	4958	0.48	4904
50 Year	0.74	0.67	5416	0.68	5439	0.66	5396
100 Year	0.88	0.86	5912	0.87	5959	0.86	5912

The Stormwater Management Design for 'Estates of Avonlea' by Coral Creek homes by Burnside Vincent Associates was reviewed. The modelling of contributing external areas, namely 'Area G', were underestimated in terms of both size and coverage under post development conditions. The SWMHYMO hydrologic assessment was remodelled using Visual OTTHYMO 6.0 to assess the impact of the additional area contributing to the pond under true post development conditions. Required pond volume and pond outflow rate were the focal points of this assessment.

When modelled in VO6, the 'Ultimate' site condition (i.e. the model using the assumptions made in the Avonlea SWM Report) produced flows and volumes that are similar to the SWMHYMO model (Summarized under "Ultimate" Model (Burnside) in the Peak Flow Summary table above). The VO6 results are summarized under the "Ultimate" Model (SKA) column in the Peak Flow Summary table above. The runoff volumes were assessed for both models to ensure hydrograph and rainfall parameters were input correctly (see above Runoff Volume Summary - Model Verification).

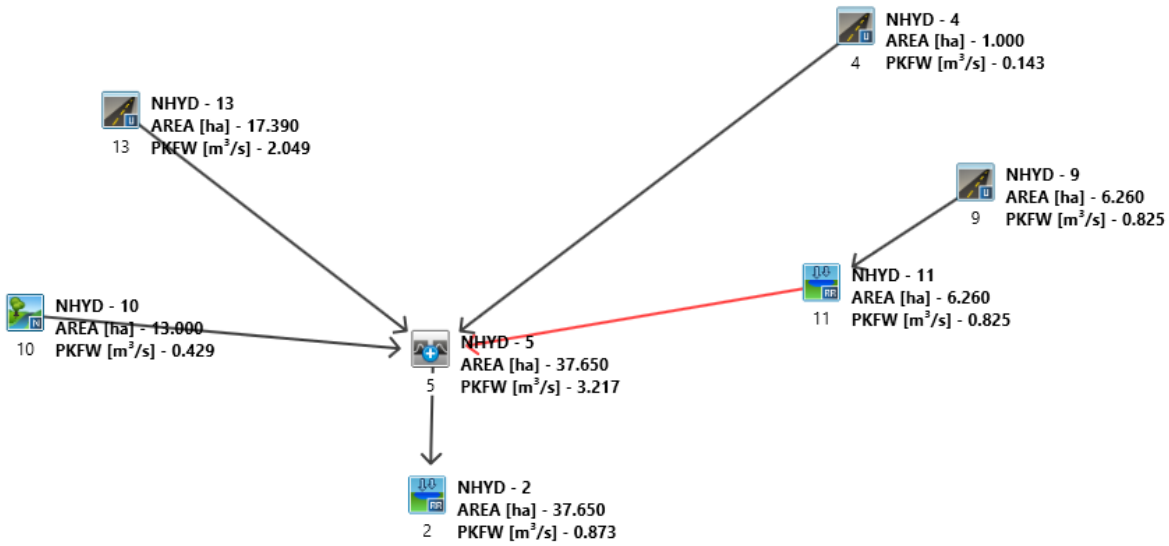
The VO6 model was then updated to reflect true post development conditions, incorporating representative site coverage, external areas and on-site storage. The storage-discharge curve used for the subject site was based on two requirements:

1) Allowable storm discharge from the subject site was identified as 221 l/s and 414 l/s for the 5 year and 100 year storms.
2) The peak flow and volumes produced from the “Post-Development Model (SKA)” should be equal to or less than the peak flow and volumes produced from the “Ultimate Model (Burnside)”

In order to satisfy requirement #1, the extended rational method was used to determine the amount of on-site storage needed and two orifice plates were sized to control the 5 year and 100 year storm event. The storage-discharge curve was then updated in the VO6 model and the results showed that the peak flow and volumes produced from the “Post-Development Model (SKA)” was greater than the peak flow and volumes produced from the “Ultimate Model (Burnside)”, thus requirement #2 was not met. Adjustments were made to both orifice plates to further restrict the proposed sites discharge until requirement #2 was satisfied while maintaining requirement #1.

The results are summarized under the “Post-Development Model (SKA)” column in the Peak Flow Summary table above. These results show a minor reduction in both pond volume and pond outflow from the “Ultimate” SKA model and the “Ultimate” Burnside model. Under 100 Year conditions, the Post-Development model matches the pond volume and peak flow from the “Ultimate” Burnside model. All models show a reduction in peak flow from pre-development conditions.

“ULTIMATE” MODEL (SKA)



```
*******************************
** SIMULATION:Run 01          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\kluong\AppD
|                  |              ata\Local\Temp\
|                  |              023df4cd-9622-42cc-a4ac-4c62a4941e33\2c0d5959
| Ptotal= 86.65 mm |    Comments: 100-Year 12-Hour SCS II Design Storm
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	2.17	3.25	3.47	6.25	15.60	9.25	3.03
0.50	2.17	3.50	3.47	6.50	15.60	9.50	3.03
0.75	2.17	3.75	3.47	6.75	6.93	9.75	3.03
1.00	2.17	4.00	3.47	7.00	6.93	10.00	3.03
1.25	2.17	4.25	5.20	7.25	5.20	10.25	1.73
1.50	2.17	4.50	5.20	7.50	5.20	10.50	1.73
1.75	2.17	4.75	6.93	7.75	5.20	10.75	1.73
2.00	2.17	5.00	6.93	8.00	5.20	11.00	1.73
2.25	2.60	5.25	10.40	8.25	3.03	11.25	1.73
2.50	2.60	5.50	10.40	8.50	3.03	11.50	1.73
2.75	2.60	5.75	41.59	8.75	3.03	11.75	1.73
3.00	2.60	6.00	114.38	9.00	3.03	12.00	1.73

```
--------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0010)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03

0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73

1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73

2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.429 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 22.555
TOTAL RAINFALL (mm)= 86.649
RUNOFF COEFFICIENT = 0.260

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0004) ID= 1 DT= 1.0 min	Area (ha)= 1.00 Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.55	0.45
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	0.01	0.01
Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03

0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73

1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73

2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	13.48	
over (min)	9.00	86.00	
Storage Coeff. (min)=	8.53 (ii)	85.64 (ii)	
Unit Hyd. Tpeak (min)=	9.00	86.00	
Unit Hyd. peak (cms)=	0.13	0.01	
			TOTALS
PEAK FLOW (cms)=	0.14	0.01	0.143 (iii)
TIME TO PEAK (hrs)=	6.03	7.37	6.03
RUNOFF VOLUME (mm)=	85.84	23.01	57.53
TOTAL RAINFALL (mm)=	86.65	86.65	86.65
RUNOFF COEFFICIENT =	0.99	0.27	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0009)
ID= 1 DT= 1.0 min

Area (ha)= 6.26
Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03

0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73

1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73

2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	82.25		
over (min)	5.00	11.00		
Storage Coeff. (min)=	3.02 (ii)	10.65 (ii)		
Unit Hyd. Tpeak (min)=	5.00	11.00		
Unit Hyd. peak (cms)=	0.31	0.11		
			TOTALS	
PEAK FLOW (cms)=	0.39	0.48	0.825 (iii)	
TIME TO PEAK (hrs)=	6.00	6.08	6.02	
RUNOFF VOLUME (mm)=	85.84	32.03	42.80	
TOTAL RAINFALL (mm)=	86.65	86.65	86.65	
RUNOFF COEFFICIENT =	0.99	0.37	0.49	

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0011)|	OVERFLOW IS ON			
IN= 2---> OUT= 1 |				
DT= 1.0 min |	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0000	0.0800
	0.0000	0.0500	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0009)	6.260	0.825	6.02	42.80
OUTFLOW: ID= 1 (0011)	0.000	0.000	5.93	30.34
OVERFLOW:ID= 3 (0003)	6.260	0.825	6.02	30.34

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 0.00

TIME SHIFT OF PEAK FLOW (min)= -5.00
MAXIMUM STORAGE USED (ha.m.)= 0.0819

CALIB STANDHYD (0013) ID= 1 DT= 1.0 min	Area (ha)= 17.39 Total Imp(%)= 45.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.83	9.56
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	340.49	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03

0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73

1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	70.25
over (min)	5.00	13.00
Storage Coeff. (min)=	4.10 (ii)	12.23 (ii)
Unit Hyd. Tpeak (min)=	5.00	13.00

```
     Unit Hyd. peak  (cms)=       0.26         0.09
                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.07         1.16          2.049 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.12           6.02
     RUNOFF VOLUME    (mm)=      85.85        30.09          41.24
     TOTAL RAINFALL   (mm)=      86.65        86.65          86.65
     RUNOFF COEFFICIENT   =       0.99         0.35           0.48

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0010):    13.00   0.429     6.47    22.55
      + ID2= 2 (  0011):     6.26   0.825     6.02    30.34
        ================================================
        ID = 3 (  0005):    19.26   1.025     6.03    25.08

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0005):    19.26   1.025     6.03    25.08
      + ID2= 2 (  0013):    17.39   2.049     6.02    41.24
        ================================================
        ID = 1 (  0005):    36.65   3.074     6.03    32.75

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0005):    36.65   3.074     6.03    32.75
      + ID2= 2 (  0004):     1.00   0.143     6.03    57.53
        ================================================
        ID = 3 (  0005):    37.65   3.217     6.03    33.41

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0850     0.3450   |   0.8700      0.5950

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0005)     37.650      3.217      6.03      33.41
   OUTFLOW: ID= 1 (  0002)     37.650      0.873      6.73      31.91

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 27.15
                  TIME SHIFT OF PEAK FLOW         (min)= 42.00
```

MAXIMUM STORAGE USED (ha.m.)= 0.5959

****
** SIMULATION:Run 02 **
****

READ STORM	Filename: C:\Users\kluong\AppData\Local\Temp\023df4cd-9622-42cc-a4ac-4c62a4941e33\c8cb6f3a
Ptotal= 79.35 mm	Comments: 100-Year 12-Hour SCS II Design Storm

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	1.98	3.25	3.17	6.25	14.28	9.25	2.78
0.50	1.98	3.50	3.17	6.50	14.28	9.50	2.78
0.75	1.98	3.75	3.17	6.75	6.35	9.75	2.78
1.00	1.98	4.00	3.17	7.00	6.35	10.00	2.78
1.25	1.98	4.25	4.76	7.25	4.76	10.25	1.59
1.50	1.98	4.50	4.76	7.50	4.76	10.50	1.59
1.75	1.98	4.75	6.35	7.75	4.76	10.75	1.59
2.00	1.98	5.00	6.35	8.00	4.76	11.00	1.59
2.25	2.38	5.25	9.52	8.25	2.78	11.25	1.59
2.50	2.38	5.50	9.52	8.50	2.78	11.50	1.59
2.75	2.38	5.75	38.09	8.75	2.78	11.75	1.59
3.00	2.38	6.00	104.74	9.00	2.78	12.00	1.59

CALIB	
NASHYD (0010)	Area (ha)= 13.00 Curve Number (CN)= 52.5
ID= 1 DT= 1.0 min	Ia (mm)= 2.50 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.52

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78

0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59

1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59

2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.365 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 19.259
TOTAL RAINFALL (mm)= 79.349
RUNOFF COEFFICIENT = 0.243

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004)
ID= 1 DT= 1.0 min

Area (ha)= 1.00
Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.55	0.45
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	0.01	0.01
Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78

0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59

1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59

2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)=	104.74	11.51		
over (min)	9.00	91.00		
Storage Coeff. (min)=	8.84 (ii)	90.98 (ii)		
Unit Hyd. Tpeak (min)=	9.00	91.00		
Unit Hyd. peak (cms)=	0.13	0.01		
			TOTALS	
PEAK FLOW (cms)=	0.13	0.01	0.130 (iii)	
TIME TO PEAK (hrs)=	6.03	7.45	6.03	
RUNOFF VOLUME (mm)=	78.55	19.68	52.01	
TOTAL RAINFALL (mm)=	79.35	79.35	79.35	
RUNOFF COEFFICIENT =	0.99	0.25	0.66	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0009)
ID= 1 DT= 1.0 min

Area (ha)= 6.26
Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78

0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59

1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59

2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)=	104.74	71.11		
over (min)	5.00	12.00		
Storage Coeff. (min)=	3.13 (ii)	11.22 (ii)		
Unit Hyd. Tpeak (min)=	5.00	12.00		
Unit Hyd. peak (cms)=	0.30	0.10		
			TOTALS	
PEAK FLOW (cms)=	0.36	0.40	0.709 (iii)	
TIME TO PEAK (hrs)=	6.00	6.10	6.02	
RUNOFF VOLUME (mm)=	78.54	27.69	37.86	
TOTAL RAINFALL (mm)=	79.35	79.35	79.35	
RUNOFF COEFFICIENT =	0.99	0.35	0.48	

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0011)| IN= 2---> OUT= 1 | DT= 1.0 min	OVERFLOW IS ON			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0000	0.0800
	0.0000	0.0500	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0009)	6.260	0.709	6.02	37.86
OUTFLOW: ID= 1 (0011)	0.000	0.000	5.98	25.17
OVERFLOW:ID= 3 (0003)	6.260	0.709	6.02	25.17

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00

PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 0.00
TIME SHIFT OF PEAK FLOW (min)= -2.00
MAXIMUM STORAGE USED (ha.m.)= 0.0804

CALIB STANDHYD (0013) ID= 1 DT= 1.0 min	Area (ha)= 17.39 Total Imp(%)= 45.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.83	9.56
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	340.49	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78

0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59

1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)= 104.74 60.60

```
                over (min)        5.00        13.00
     Storage Coeff.  (min)=       4.25 (ii)   12.87 (ii)
     Unit Hyd. Tpeak (min)=       5.00        13.00
     Unit Hyd. peak  (cms)=       0.25         0.09
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.98         0.98          1.795 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.12           6.02
     RUNOFF VOLUME    (mm)=      78.54        25.95          36.47
     TOTAL RAINFALL   (mm)=      79.35        79.35          79.35
     RUNOFF COEFFICIENT   =       0.99         0.33           0.46

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0010):    13.00   0.365     6.47    19.26
      + ID2= 2 (  0011):     6.26   0.709     6.02    25.17
        ================================================
        ID = 3 (  0005):    19.26   0.878     6.03    21.18

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0005):    19.26   0.878     6.03    21.18
      + ID2= 2 (  0013):    17.39   1.795     6.02    36.47
        ================================================
        ID = 1 (  0005):    36.65   2.671     6.03    28.44

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0005):    36.65   2.671     6.03    28.44
      + ID2= 2 (  0004):     1.00   0.130     6.03    52.01
        ================================================
        ID = 3 (  0005):    37.65   2.801     6.03    29.06

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0850     0.3450   |   0.8700      0.5950

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0005)     37.650      2.801      6.03      29.06
   OUTFLOW: ID= 1 (  0002)     37.650      0.680      6.83      27.58
```

```
                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 24.26
                  TIME SHIFT OF PEAK FLOW         (min)= 48.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.5439

--------------------------------------------------------------------------------
*******************************
** SIMULATION:Run 03          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\kluong\AppD
|                  |              ata\Local\Temp\
|                  |              023df4cd-9622-42cc-a4ac-4c62a4941e33\61de9e40
| Ptotal= 72.29 mm |    Comments: 100-Year 12-Hour SCS II Design Storm
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	1.81	3.25	2.89	6.25	13.01	9.25	2.53
0.50	1.81	3.50	2.89	6.50	13.01	9.50	2.53
0.75	1.81	3.75	2.89	6.75	5.78	9.75	2.53
1.00	1.81	4.00	2.89	7.00	5.78	10.00	2.53
1.25	1.81	4.25	4.34	7.25	4.34	10.25	1.45
1.50	1.81	4.50	4.34	7.50	4.34	10.50	1.45
1.75	1.81	4.75	5.78	7.75	4.34	10.75	1.45
2.00	1.81	5.00	5.78	8.00	4.34	11.00	1.45
2.25	2.17	5.25	8.67	8.25	2.53	11.25	1.45
2.50	2.17	5.50	8.67	8.50	2.53	11.50	1.45
2.75	2.17	5.75	34.70	8.75	2.53	11.75	1.45
3.00	2.17	6.00	95.42	9.00	2.53	12.00	1.45

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--------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0010)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53

0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45

1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45

2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.308 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 16.257
TOTAL RAINFALL (mm)= 72.289
RUNOFF COEFFICIENT = 0.225

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0004)	Area (ha)= 1.00
ID= 1 DT= 1.0 min	Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.55	0.45
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	0.01	0.01
Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53

0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45

1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45

2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Max.Eff.Inten.(mm/hr)=	95.42	9.72	
over (min)	9.00	98.00	
Storage Coeff. (min)=	9.18 (ii)	97.06 (ii)	
Unit Hyd. Tpeak (min)=	9.00	98.00	
Unit Hyd. peak (cms)=	0.12	0.01	
			TOTALS
PEAK FLOW (cms)=	0.12	0.01	0.117 (iii)
TIME TO PEAK (hrs)=	6.03	7.57	6.03
RUNOFF VOLUME (mm)=	71.48	16.66	46.76
TOTAL RAINFALL (mm)=	72.29	72.29	72.29
RUNOFF COEFFICIENT =	0.99	0.23	0.65

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0009) ID= 1 DT= 1.0 min	Area (ha)= 6.26 Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53

0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45

1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45

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                2.467    2.17 | 5.467    8.67 | 8.467    2.53 | 11.47    1.45
                2.483    2.17 | 5.483    8.67 | 8.483    2.53 | 11.48    1.45
                2.500    2.17 | 5.500    8.70 | 8.500    2.53 | 11.50    1.45
                2.517    2.17 | 5.517   34.70 | 8.517    2.53 | 11.52    1.45
                2.533    2.17 | 5.533   34.70 | 8.533    2.53 | 11.53    1.45
                2.550    2.17 | 5.550   34.70 | 8.550    2.53 | 11.55    1.45
                2.567    2.17 | 5.567   34.70 | 8.567    2.53 | 11.57    1.45
                2.583    2.17 | 5.583   34.70 | 8.583    2.53 | 11.58    1.45
                2.600    2.17 | 5.600   34.70 | 8.600    2.53 | 11.60    1.45
                2.617    2.17 | 5.617   34.70 | 8.617    2.53 | 11.62    1.45
                2.633    2.17 | 5.633   34.70 | 8.633    2.53 | 11.63    1.45
                2.650    2.17 | 5.650   34.70 | 8.650    2.53 | 11.65    1.45
                2.667    2.17 | 5.667   34.70 | 8.667    2.53 | 11.67    1.45
                2.683    2.17 | 5.683   34.70 | 8.683    2.53 | 11.68    1.45
                2.700    2.17 | 5.700   34.70 | 8.700    2.53 | 11.70    1.45
                2.717    2.17 | 5.717   34.70 | 8.717    2.53 | 11.72    1.45
                2.733    2.17 | 5.733   34.70 | 8.733    2.53 | 11.73    1.45
                2.750    2.17 | 5.750   34.77 | 8.750    2.53 | 11.75    1.45
                2.767    2.17 | 5.767   95.42 | 8.767    2.53 | 11.77    1.45
                2.783    2.17 | 5.783   95.42 | 8.783    2.53 | 11.78    1.45
                2.800    2.17 | 5.800   95.42 | 8.800    2.53 | 11.80    1.45
                2.817    2.17 | 5.817   95.42 | 8.817    2.53 | 11.82    1.45
                2.833    2.17 | 5.833   95.42 | 8.833    2.53 | 11.83    1.45
                2.850    2.17 | 5.850   95.42 | 8.850    2.53 | 11.85    1.45
                2.867    2.17 | 5.867   95.42 | 8.867    2.53 | 11.87    1.45
                2.883    2.17 | 5.883   95.42 | 8.883    2.53 | 11.88    1.45
                2.900    2.17 | 5.900   95.42 | 8.900    2.53 | 11.90    1.45
                2.917    2.17 | 5.917   95.42 | 8.917    2.53 | 11.92    1.45
                2.933    2.17 | 5.933   95.42 | 8.933    2.53 | 11.93    1.45
                2.950    2.17 | 5.950   95.42 | 8.950    2.53 | 11.95    1.45
                2.967    2.17 | 5.967   95.42 | 8.967    2.53 | 11.97    1.45
                2.983    2.17 | 5.983   95.42 | 8.983    2.53 | 11.98    1.45
                3.000    2.17 | 6.000   95.31 | 9.000    2.53 | 12.00    1.45

     Max.Eff.Inten.(mm/hr)=      95.42        60.81
               over (min)         5.00        12.00
     Storage Coeff.  (min)=       3.25 (ii)   11.86 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.00
     Unit Hyd. peak  (cms)=       0.29         0.10
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.33         0.34          0.616 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.10           6.02
     RUNOFF VOLUME    (mm)=      71.49        23.68          33.24
     TOTAL RAINFALL   (mm)=      72.29        72.29          72.29
     RUNOFF COEFFICIENT   =       0.99         0.33           0.46

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| RESERVOIR(  0011)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.0000      0.0800
                          0.0000     0.0500   |   0.0000      0.0000

                                  AREA     QPEAK     TPEAK       R.V.
                                  (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0009)      6.260      0.616      6.02      33.24
   OUTFLOW: ID= 1 (  0011)      0.000      0.000      6.03      20.36
   OVERFLOW:ID= 3 (  0003)      6.260      0.611      6.03      20.36
```

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 0.00
TIME SHIFT OF PEAK FLOW (min)= 1.00
MAXIMUM STORAGE USED (ha.m.)= 0.0806

CALIB STANDHYD (0013) ID= 1 DT= 1.0 min	Area (ha)= 17.39 Total Imp(%)= 45.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.83	9.56
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	340.49	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53

0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45

1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45

```
               3.000    2.17 | 6.000   95.31 | 9.000    2.53 | 12.00    1.45

     Max.Eff.Inten.(mm/hr)=      95.42        51.70
               over (min)         5.00        14.00
     Storage Coeff.  (min)=       4.41 (ii)   13.60 (ii)
     Unit Hyd. Tpeak (min)=       5.00        14.00
     Unit Hyd. peak  (cms)=       0.25         0.08
                                                        *TOTALS*
     PEAK FLOW       (cms)=       0.89         0.81          1.532 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.13           6.02
     RUNOFF VOLUME    (mm)=      71.49        22.15          32.02
     TOTAL RAINFALL   (mm)=      72.29        72.29          72.29
     RUNOFF COEFFICIENT   =       0.99         0.31           0.44

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0010):    13.00   0.308     6.47    16.26
      + ID2= 2 (  0011):     6.26   0.611     6.03    20.36
        ================================================
        ID = 3 (  0005):    19.26   0.757     6.03    17.59

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0005):    19.26   0.757     6.03    17.59
      + ID2= 2 (  0013):    17.39   1.532     6.02    32.02
        ================================================
        ID = 1 (  0005):    36.65   2.287     6.03    24.44

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0005):    36.65   2.287     6.03    24.44
      + ID2= 2 (  0004):     1.00   0.117     6.03    46.76
        ================================================
        ID = 3 (  0005):    37.65   2.404     6.03    25.03

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0850     0.3450   |   0.8700      0.5950

                                AREA     QPEAK     TPEAK       R.V.
```

```
                              (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0005)     37.650      2.404      6.03      25.03
   OUTFLOW: ID= 1 (  0002)     37.650      0.501      6.98      23.57

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 20.82
                  TIME SHIFT OF PEAK FLOW         (min)= 57.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.4958

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*******************************
** SIMULATION:Run 04          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\kluong\AppD
|                  |              ata\Local\Temp\
|                  |              023df4cd-9622-42cc-a4ac-4c62a4941e33\27609849
| Ptotal= 54.32 mm |    Comments: 5 yr - 12hr SCS II
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	0.00	3.25	2.19	6.25	9.84	9.25	1.91
0.50	1.37	3.50	2.19	6.50	9.84	9.50	1.91
0.75	1.37	3.75	2.19	6.75	4.37	9.75	1.91
1.00	1.37	4.00	2.19	7.00	4.37	10.00	1.91
1.25	1.37	4.25	3.28	7.25	3.28	10.25	1.09
1.50	1.37	4.50	3.28	7.50	3.28	10.50	1.09
1.75	1.37	4.75	4.37	7.75	3.28	10.75	1.09
2.00	1.37	5.00	4.37	8.00	3.28	11.00	1.09
2.25	1.64	5.25	6.56	8.25	1.91	11.25	1.09
2.50	1.64	5.50	6.56	8.50	1.91	11.50	1.09
2.75	1.64	5.75	26.24	8.75	1.91	11.75	1.09
3.00	1.64	6.00	72.15	9.00	1.91	12.00	1.09

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--------------------
| CALIB            |
| NASHYD   (  0010)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91

0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09

1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09

2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.179 (i)
TIME TO PEAK (hrs)= 6.483
RUNOFF VOLUME (mm)= 9.534
TOTAL RAINFALL (mm)= 54.318
RUNOFF COEFFICIENT = 0.176

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0004)	Area (ha)= 1.00
ID= 1 DT= 1.0 min	Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.55	0.45
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	0.01	0.01
Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91

0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09

1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09

2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Max.Eff.Inten.(mm/hr)=	72.15	5.72		
over (min)	10.00	119.00		
Storage Coeff. (min)=	10.26 (ii)	118.88 (ii)		
Unit Hyd. Tpeak (min)=	10.00	119.00		
Unit Hyd. peak (cms)=	0.11	0.01		
			TOTALS	
PEAK FLOW (cms)=	0.08	0.00	0.084 (iii)	
TIME TO PEAK (hrs)=	6.05	7.93	6.05	
RUNOFF VOLUME (mm)=	53.52	9.86	33.81	
TOTAL RAINFALL (mm)=	54.32	54.32	54.32	
RUNOFF COEFFICIENT =	0.99	0.18	0.62	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0009)	Area (ha)= 6.26
ID= 1 DT= 1.0 min	Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91

0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09

1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09

2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Max.Eff.Inten.(mm/hr)=	72.15	36.66		
over (min)	5.00	15.00		
Storage Coeff. (min)=	3.63 (ii)	14.17 (ii)		
Unit Hyd. Tpeak (min)=	5.00	15.00		
Unit Hyd. peak (cms)=	0.28	0.08		
			TOTALS	
PEAK FLOW (cms)=	0.25	0.18	0.383 (iii)	
TIME TO PEAK (hrs)=	6.00	6.15	6.02	
RUNOFF VOLUME (mm)=	53.52	14.46	22.27	
TOTAL RAINFALL (mm)=	54.32	54.32	54.32	
RUNOFF COEFFICIENT =	0.99	0.27	0.41	

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0011)	IN= 2---> OUT= 1	DT= 1.0 min	OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0000	0.0800
0.0000	0.0500	0.0000	0.0000

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

```
   INFLOW : ID= 2 (  0009)      6.260      0.383      6.02      22.27
   OUTFLOW: ID= 1 (  0011)      0.000      0.000      6.33       9.54
   OVERFLOW:ID= 3 (  0003)      6.260      0.162      6.33       9.54

                  TOTAL NUMBER OF SIMULATION OVERFLOW  =     0
                  CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                  PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  0.00
                  TIME SHIFT OF PEAK FLOW         (min)= 19.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0802

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--------------------
| CALIB            |
| STANDHYD (  0013)|   Area    (ha)=  17.39
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  20.00
--------------------
                           IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.83         9.56
     Dep. Storage     (mm)=       0.80         1.50
     Average Slope     (%)=       2.00         2.00
     Length            (m)=     340.49        40.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.


                        ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.017    0.00 | 3.017    2.19 | 6.017    9.84 |  9.02    1.91
 0.033    0.00 | 3.033    2.19 | 6.033    9.84 |  9.03    1.91
 0.050    0.00 | 3.050    2.19 | 6.050    9.84 |  9.05    1.91
 0.067    0.00 | 3.067    2.19 | 6.067    9.84 |  9.07    1.91
 0.083    0.00 | 3.083    2.19 | 6.083    9.84 |  9.08    1.91
 0.100    0.00 | 3.100    2.19 | 6.100    9.84 |  9.10    1.91
 0.117    0.00 | 3.117    2.19 | 6.117    9.84 |  9.12    1.91
 0.133    0.00 | 3.133    2.19 | 6.133    9.84 |  9.13    1.91
 0.150    0.00 | 3.150    2.19 | 6.150    9.84 |  9.15    1.91
 0.167    0.00 | 3.167    2.19 | 6.167    9.84 |  9.17    1.91
 0.183    0.00 | 3.183    2.19 | 6.183    9.84 |  9.18    1.91
 0.200    0.00 | 3.200    2.19 | 6.200    9.84 |  9.20    1.91
 0.217    0.00 | 3.217    2.19 | 6.217    9.84 |  9.22    1.91
 0.233    0.00 | 3.233    2.19 | 6.233    9.84 |  9.23    1.91
 0.250    0.00 | 3.250    2.19 | 6.250    9.84 |  9.25    1.91
 0.267    1.37 | 3.267    2.19 | 6.267    9.84 |  9.27    1.91
 0.283    1.37 | 3.283    2.19 | 6.283    9.84 |  9.28    1.91
 0.300    1.37 | 3.300    2.19 | 6.300    9.84 |  9.30    1.91
 0.317    1.37 | 3.317    2.19 | 6.317    9.84 |  9.32    1.91
 0.333    1.37 | 3.333    2.19 | 6.333    9.84 |  9.33    1.91
 0.350    1.37 | 3.350    2.19 | 6.350    9.84 |  9.35    1.91
 0.367    1.37 | 3.367    2.19 | 6.367    9.84 |  9.37    1.91
 0.383    1.37 | 3.383    2.19 | 6.383    9.84 |  9.38    1.91
 0.400    1.37 | 3.400    2.19 | 6.400    9.84 |  9.40    1.91
 0.417    1.37 | 3.417    2.19 | 6.417    9.84 |  9.42    1.91
 0.433    1.37 | 3.433    2.19 | 6.433    9.84 |  9.43    1.91
 0.450    1.37 | 3.450    2.19 | 6.450    9.84 |  9.45    1.91
 0.467    1.37 | 3.467    2.19 | 6.467    9.84 |  9.47    1.91
 0.483    1.37 | 3.483    2.19 | 6.483    9.84 |  9.48    1.91
 0.500    1.37 | 3.500    2.19 | 6.500    9.83 |  9.50    1.91
 0.517    1.37 | 3.517    2.19 | 6.517    4.37 |  9.52    1.91
 0.533    1.37 | 3.533    2.19 | 6.533    4.37 |  9.53    1.91
 0.550    1.37 | 3.550    2.19 | 6.550    4.37 |  9.55    1.91
 0.567    1.37 | 3.567    2.19 | 6.567    4.37 |  9.57    1.91
 0.583    1.37 | 3.583    2.19 | 6.583    4.37 |  9.58    1.91
 0.600    1.37 | 3.600    2.19 | 6.600    4.37 |  9.60    1.91
 0.617    1.37 | 3.617    2.19 | 6.617    4.37 |  9.62    1.91
 0.633    1.37 | 3.633    2.19 | 6.633    4.37 |  9.63    1.91
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0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09

1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09

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               2.950    1.64 | 5.950   72.15 | 8.950    1.91 | 11.95    1.09
               2.967    1.64 | 5.967   72.15 | 8.967    1.91 | 11.97    1.09
               2.983    1.64 | 5.983   72.15 | 8.983    1.91 | 11.98    1.09
               3.000    1.64 | 6.000   72.06 | 9.000    1.91 | 12.00    1.09

     Max.Eff.Inten.(mm/hr)=      72.15        30.45
               over (min)         5.00        17.00
     Storage Coeff.  (min)=       4.93 (ii)   16.29 (ii)
     Unit Hyd. Tpeak (min)=       5.00        17.00
     Unit Hyd. peak  (cms)=       0.23         0.07
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.66         0.44          0.962 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.18           6.02
     RUNOFF VOLUME    (mm)=      53.52        13.44          21.45
     TOTAL RAINFALL   (mm)=      54.32        54.32          54.32
     RUNOFF COEFFICIENT   =       0.99         0.25           0.39

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0010):    13.00   0.179     6.48     9.53
      + ID2= 2 (  0011):     6.26   0.162     6.33     9.54
        ================================================
        ID = 3 (  0005):    19.26   0.333     6.33     9.53

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0005):    19.26   0.333     6.33     9.53
      + ID2= 2 (  0013):    17.39   0.962     6.02    21.45
        ================================================
        ID = 1 (  0005):    36.65   1.040     6.03    15.19

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0005)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0005):    36.65   1.040     6.03    15.19
      + ID2= 2 (  0004):     1.00   0.084     6.05    33.81
        ================================================
        ID = 3 (  0005):    37.65   1.124     6.03    15.68

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000     0.0000   |   0.3670      0.4600
```

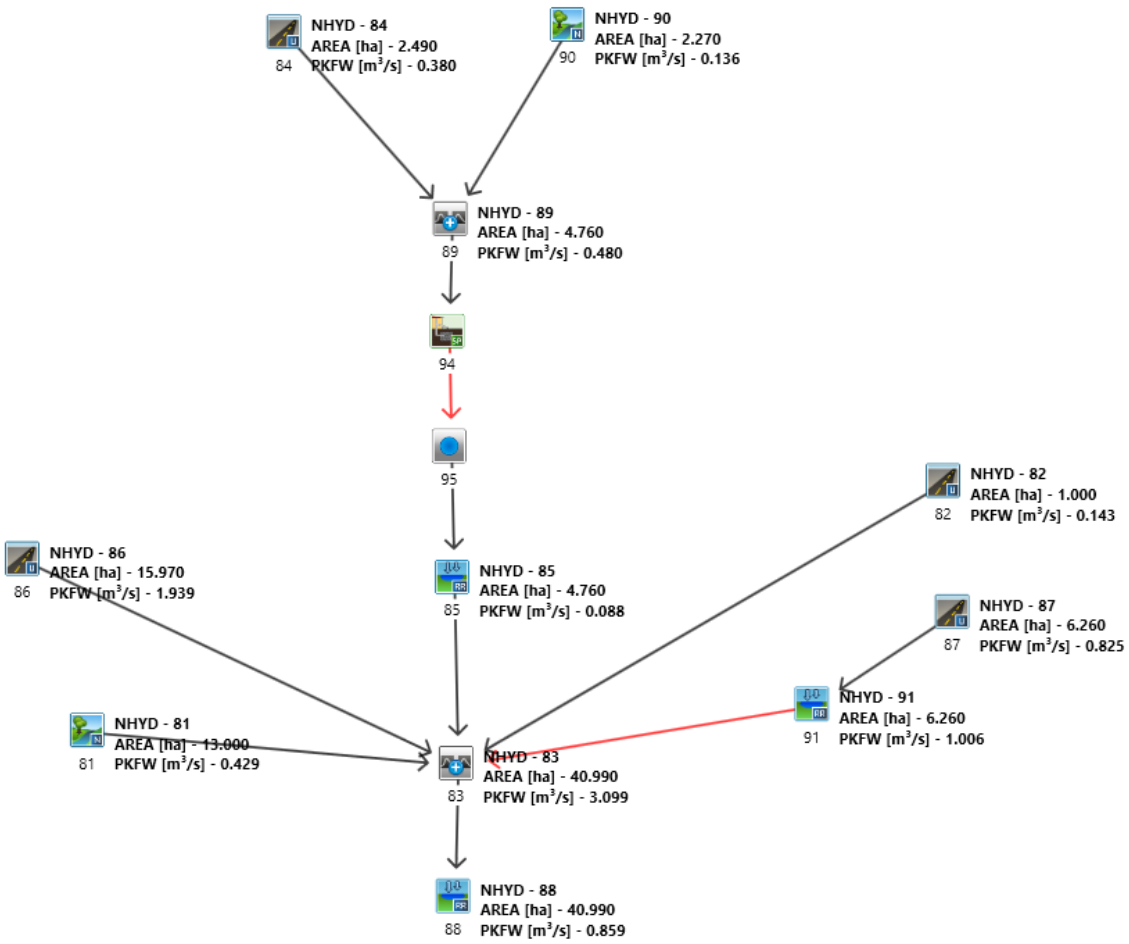
```
                        0.0850     0.3450   |   0.8700      0.5950

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0005)     37.650      1.124      6.03      15.68
   OUTFLOW: ID= 1 (  0002)     37.650      0.158      8.08      14.30

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 14.03
                  TIME SHIFT OF PEAK FLOW         (min)=123.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.3746

--------------------------------------------------------------------------------
```

POST-DEVELOPMENT MODEL (SKA)



```
*******************************
** SIMULATION:Run 01          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\hwalsh\AppD
|                  |              ata\Local\Temp\
|                  |              6c940005-6681-4167-b4db-001c516d3d70\2c0d5959
| Ptotal= 86.65 mm |    Comments: 100-Year 12-Hour SCS II Design Storm
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	2.17	3.25	3.47	6.25	15.60	9.25	3.03
0.50	2.17	3.50	3.47	6.50	15.60	9.50	3.03
0.75	2.17	3.75	3.47	6.75	6.93	9.75	3.03
1.00	2.17	4.00	3.47	7.00	6.93	10.00	3.03
1.25	2.17	4.25	5.20	7.25	5.20	10.25	1.73
1.50	2.17	4.50	5.20	7.50	5.20	10.50	1.73
1.75	2.17	4.75	6.93	7.75	5.20	10.75	1.73
2.00	2.17	5.00	6.93	8.00	5.20	11.00	1.73
2.25	2.60	5.25	10.40	8.25	3.03	11.25	1.73
2.50	2.60	5.50	10.40	8.50	3.03	11.50	1.73
2.75	2.60	5.75	41.59	8.75	3.03	11.75	1.73
3.00	2.60	6.00	114.38	9.00	3.03	12.00	1.73

```
--------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0081)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03

0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73

1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73

2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.429 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 22.555
TOTAL RAINFALL (mm)= 86.649
RUNOFF COEFFICIENT = 0.260

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0090) ID= 1 DT= 1.0 min	Area (ha)= 2.27	Curve Number (CN)= 62.0
	Ia (mm)= 8.70	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.28	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03

0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73

1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73

2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Unit Hyd Qpeak (cms)= 0.310

PEAK FLOW (cms)= 0.136 (i)
TIME TO PEAK (hrs)= 6.183
RUNOFF VOLUME (mm)= 26.015
TOTAL RAINFALL (mm)= 86.649
RUNOFF COEFFICIENT = 0.300

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0084)
ID= 1 DT= 1.0 min

Area (ha)= 2.49
Total Imp(%)= 69.00 Dir. Conn.(%)= 23.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.72	0.77
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	128.84	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03

0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73

1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73

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                2.817    2.60 | 5.817  114.38 | 8.817    3.03 | 11.82    1.73
                2.833    2.60 | 5.833  114.38 | 8.833    3.03 | 11.83    1.73
                2.850    2.60 | 5.850  114.38 | 8.850    3.03 | 11.85    1.73
                2.867    2.60 | 5.867  114.38 | 8.867    3.03 | 11.87    1.73
                2.883    2.60 | 5.883  114.38 | 8.883    3.03 | 11.88    1.73
                2.900    2.60 | 5.900  114.38 | 8.900    3.03 | 11.90    1.73
                2.917    2.60 | 5.917  114.38 | 8.917    3.03 | 11.92    1.73
                2.933    2.60 | 5.933  114.38 | 8.933    3.03 | 11.93    1.73
                2.950    2.60 | 5.950  114.38 | 8.950    3.03 | 11.95    1.73
                2.967    2.60 | 5.967  114.38 | 8.967    3.03 | 11.97    1.73
                2.983    2.60 | 5.983  114.38 | 8.983    3.03 | 11.98    1.73
                3.000    2.60 | 6.000  114.24 | 9.000    3.03 | 12.00    1.73

     Max.Eff.Inten.(mm/hr)=     114.38       150.56
               over (min)        5.00        11.00
     Storage Coeff.  (min)=       2.82 (ii)   10.36 (ii)
     Unit Hyd. Tpeak (min)=       5.00        11.00
     Unit Hyd. peak  (cms)=       0.32         0.11
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.18         0.22          0.380 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.08           6.02
     RUNOFF VOLUME    (mm)=      85.64        37.49          48.56
     TOTAL RAINFALL   (mm)=      86.65        86.65          86.65
     RUNOFF COEFFICIENT   =       0.99         0.43           0.56


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0089)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0084):     2.49   0.380     6.02    48.56
      + ID2= 2 (  0090):     2.27   0.136     6.18    26.02
        ====================================================
        ID = 3 (  0089):     4.76   0.480     6.03    37.81

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
------------------
|SOAKAWAY(  0094)|  UNDERDRAIN: OFF
|IN= 2--> OUT= 3 |
|DT=  1.0 MIN    |  STORAGE LAYER:
------------------  Length          (m)= 293.00   Height                 (m)=   1.00
                    Porosity           =   1.00   Initial Water Level    (m)=   0.00
                    Width           (m)=   3.00   Min. Drawdown         (hr)=  24.00
                    Max. Drawdown  (hr)=    Inf   Available Storage   (cu.m.)= 879.00

                    NATIVE SOIL LAYER:
                    Infiltration (m/hr) = 0.0000

                       AREA         QPEAK            TPEAK         R.V.
                       (ha)         (cms)            (hrs)         (mm)
      INFLOW:ID= 2     4.76         0.480             6.03        37.81
    OVERFLOW:ID= 3     4.76         0.285             6.27        19.34

               Volume Reduction Rate[(RVin-RVout)/RVin](%):
                          If RVout= (Overflow             )=       48.84
               Time to reach Max storage              (Hr)=        6.25
               Volume of water for drawdown in LID (cu.m.)=      879.00
               Volume of maximum water storage     (cu.m.)=      879.00
               ***** After simulation, water volume is not zero.
```

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  -------------------------
  | Junction Command(0095) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 3(  0094)    4.76     0.28    6.27    19.34
  OUTFLOW: ID= 2(  0095)    4.76     0.28    6.27    19.34

  --------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0085)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.2560      0.0427
                          0.0390     0.0003   |   0.3340      0.0542
                          0.0650     0.0049   |   0.3650      0.0594
                          0.0830     0.0142   |   0.3770      0.0614
                          0.0880     0.0193   |   0.3880      0.0634
                          0.1330     0.0285   |   0.3990      0.0652
                          0.1720     0.0336   |   0.4140      0.0679
                          0.2210     0.0393   |   0.0000      0.0000

                               AREA     QPEAK     TPEAK       R.V.
                               (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0095)     4.760      0.285      6.27      19.34
   OUTFLOW: ID= 1 (  0085)     4.760      0.088      6.83      19.34

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 30.94
                  TIME SHIFT OF PEAK FLOW         (min)= 34.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0193

     **** WARNING : HYDROGRAPH WAS CUT. CHECK VOLUME.
--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0082)|   Area    (ha)=   1.00
|ID= 1 DT= 1.0 min |   Total Imp(%)=  55.00   Dir. Conn.(%)=  55.00
--------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.55         0.45
     Dep. Storage     (mm)=       0.80         1.50
     Average Slope     (%)=       0.01         0.01
     Length            (m)=      81.65        40.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.017    2.17 | 3.017    3.47 | 6.017   15.60 |  9.02    3.03
               0.033    2.17 | 3.033    3.47 | 6.033   15.60 |  9.03    3.03
               0.050    2.17 | 3.050    3.47 | 6.050   15.60 |  9.05    3.03
               0.067    2.17 | 3.067    3.47 | 6.067   15.60 |  9.07    3.03
               0.083    2.17 | 3.083    3.47 | 6.083   15.60 |  9.08    3.03
               0.100    2.17 | 3.100    3.47 | 6.100   15.60 |  9.10    3.03
               0.117    2.17 | 3.117    3.47 | 6.117   15.60 |  9.12    3.03
               0.133    2.17 | 3.133    3.47 | 6.133   15.60 |  9.13    3.03
               0.150    2.17 | 3.150    3.47 | 6.150   15.60 |  9.15    3.03
               0.167    2.17 | 3.167    3.47 | 6.167   15.60 |  9.17    3.03
               0.183    2.17 | 3.183    3.47 | 6.183   15.60 |  9.18    3.03
               0.200    2.17 | 3.200    3.47 | 6.200   15.60 |  9.20    3.03
               0.217    2.17 | 3.217    3.47 | 6.217   15.60 |  9.22    3.03
               0.233    2.17 | 3.233    3.47 | 6.233   15.60 |  9.23    3.03
               0.250    2.17 | 3.250    3.47 | 6.250   15.60 |  9.25    3.03
               0.267    2.17 | 3.267    3.47 | 6.267   15.60 |  9.27    3.03
```

0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73

1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73

2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	13.48	
over (min)	9.00	86.00	
Storage Coeff. (min)=	8.53 (ii)	85.64 (ii)	
Unit Hyd. Tpeak (min)=	9.00	86.00	
Unit Hyd. peak (cms)=	0.13	0.01	
			TOTALS
PEAK FLOW (cms)=	0.14	0.01	0.143 (iii)
TIME TO PEAK (hrs)=	6.03	7.37	6.03
RUNOFF VOLUME (mm)=	85.84	23.01	57.53
TOTAL RAINFALL (mm)=	86.65	86.65	86.65
RUNOFF COEFFICIENT =	0.99	0.27	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0086)	Area (ha)=	15.97	
ID= 1 DT= 1.0 min	Total Imp(%)=	45.00	Dir. Conn.(%)= 22.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.19	8.78
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	326.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03

0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73
1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73

1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73
2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73

2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	67.34		
over (min)	5.00	13.00		
Storage Coeff. (min)=	4.00 (ii)	12.27 (ii)		
Unit Hyd. Tpeak (min)=	5.00	13.00		
Unit Hyd. peak (cms)=	0.26	0.09		
			TOTALS	
PEAK FLOW (cms)=	1.08	1.02	1.939 (iii)	
TIME TO PEAK (hrs)=	6.00	6.12	6.02	
RUNOFF VOLUME (mm)=	85.84	29.58	41.96	
TOTAL RAINFALL (mm)=	86.65	86.65	86.65	
RUNOFF COEFFICIENT =	0.99	0.34	0.48	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0087)	Area (ha)=	6.26	
ID= 1 DT= 1.0 min	Total Imp(%)=	50.00	Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	2.17	3.017	3.47	6.017	15.60	9.02	3.03
0.033	2.17	3.033	3.47	6.033	15.60	9.03	3.03
0.050	2.17	3.050	3.47	6.050	15.60	9.05	3.03
0.067	2.17	3.067	3.47	6.067	15.60	9.07	3.03
0.083	2.17	3.083	3.47	6.083	15.60	9.08	3.03
0.100	2.17	3.100	3.47	6.100	15.60	9.10	3.03
0.117	2.17	3.117	3.47	6.117	15.60	9.12	3.03
0.133	2.17	3.133	3.47	6.133	15.60	9.13	3.03
0.150	2.17	3.150	3.47	6.150	15.60	9.15	3.03
0.167	2.17	3.167	3.47	6.167	15.60	9.17	3.03
0.183	2.17	3.183	3.47	6.183	15.60	9.18	3.03
0.200	2.17	3.200	3.47	6.200	15.60	9.20	3.03
0.217	2.17	3.217	3.47	6.217	15.60	9.22	3.03
0.233	2.17	3.233	3.47	6.233	15.60	9.23	3.03
0.250	2.17	3.250	3.47	6.250	15.60	9.25	3.03
0.267	2.17	3.267	3.47	6.267	15.60	9.27	3.03
0.283	2.17	3.283	3.47	6.283	15.60	9.28	3.03
0.300	2.17	3.300	3.47	6.300	15.60	9.30	3.03
0.317	2.17	3.317	3.47	6.317	15.60	9.32	3.03
0.333	2.17	3.333	3.47	6.333	15.60	9.33	3.03
0.350	2.17	3.350	3.47	6.350	15.60	9.35	3.03
0.367	2.17	3.367	3.47	6.367	15.60	9.37	3.03
0.383	2.17	3.383	3.47	6.383	15.60	9.38	3.03
0.400	2.17	3.400	3.47	6.400	15.60	9.40	3.03
0.417	2.17	3.417	3.47	6.417	15.60	9.42	3.03
0.433	2.17	3.433	3.47	6.433	15.60	9.43	3.03
0.450	2.17	3.450	3.47	6.450	15.60	9.45	3.03
0.467	2.17	3.467	3.47	6.467	15.60	9.47	3.03
0.483	2.17	3.483	3.47	6.483	15.60	9.48	3.03
0.500	2.17	3.500	3.47	6.500	15.58	9.50	3.03
0.517	2.17	3.517	3.47	6.517	6.93	9.52	3.03
0.533	2.17	3.533	3.47	6.533	6.93	9.53	3.03
0.550	2.17	3.550	3.47	6.550	6.93	9.55	3.03
0.567	2.17	3.567	3.47	6.567	6.93	9.57	3.03
0.583	2.17	3.583	3.47	6.583	6.93	9.58	3.03
0.600	2.17	3.600	3.47	6.600	6.93	9.60	3.03
0.617	2.17	3.617	3.47	6.617	6.93	9.62	3.03
0.633	2.17	3.633	3.47	6.633	6.93	9.63	3.03
0.650	2.17	3.650	3.47	6.650	6.93	9.65	3.03
0.667	2.17	3.667	3.47	6.667	6.93	9.67	3.03
0.683	2.17	3.683	3.47	6.683	6.93	9.68	3.03
0.700	2.17	3.700	3.47	6.700	6.93	9.70	3.03
0.717	2.17	3.717	3.47	6.717	6.93	9.72	3.03
0.733	2.17	3.733	3.47	6.733	6.93	9.73	3.03
0.750	2.17	3.750	3.47	6.750	6.93	9.75	3.03
0.767	2.17	3.767	3.47	6.767	6.93	9.77	3.03
0.783	2.17	3.783	3.47	6.783	6.93	9.78	3.03
0.800	2.17	3.800	3.47	6.800	6.93	9.80	3.03
0.817	2.17	3.817	3.47	6.817	6.93	9.82	3.03
0.833	2.17	3.833	3.47	6.833	6.93	9.83	3.03
0.850	2.17	3.850	3.47	6.850	6.93	9.85	3.03
0.867	2.17	3.867	3.47	6.867	6.93	9.87	3.03
0.883	2.17	3.883	3.47	6.883	6.93	9.88	3.03
0.900	2.17	3.900	3.47	6.900	6.93	9.90	3.03
0.917	2.17	3.917	3.47	6.917	6.93	9.92	3.03
0.933	2.17	3.933	3.47	6.933	6.93	9.93	3.03
0.950	2.17	3.950	3.47	6.950	6.93	9.95	3.03
0.967	2.17	3.967	3.47	6.967	6.93	9.97	3.03
0.983	2.17	3.983	3.47	6.983	6.93	9.98	3.03
1.000	2.17	4.000	3.47	7.000	6.93	10.00	3.03
1.017	2.17	4.017	5.20	7.017	5.20	10.02	1.73

1.033	2.17	4.033	5.20	7.033	5.20	10.03	1.73
1.050	2.17	4.050	5.20	7.050	5.20	10.05	1.73
1.067	2.17	4.067	5.20	7.067	5.20	10.07	1.73
1.083	2.17	4.083	5.20	7.083	5.20	10.08	1.73
1.100	2.17	4.100	5.20	7.100	5.20	10.10	1.73
1.117	2.17	4.117	5.20	7.117	5.20	10.12	1.73
1.133	2.17	4.133	5.20	7.133	5.20	10.13	1.73
1.150	2.17	4.150	5.20	7.150	5.20	10.15	1.73
1.167	2.17	4.167	5.20	7.167	5.20	10.17	1.73
1.183	2.17	4.183	5.20	7.183	5.20	10.18	1.73
1.200	2.17	4.200	5.20	7.200	5.20	10.20	1.73
1.217	2.17	4.217	5.20	7.217	5.20	10.22	1.73
1.233	2.17	4.233	5.20	7.233	5.20	10.23	1.73
1.250	2.17	4.250	5.20	7.250	5.20	10.25	1.73
1.267	2.17	4.267	5.20	7.267	5.20	10.27	1.73
1.283	2.17	4.283	5.20	7.283	5.20	10.28	1.73
1.300	2.17	4.300	5.20	7.300	5.20	10.30	1.73
1.317	2.17	4.317	5.20	7.317	5.20	10.32	1.73
1.333	2.17	4.333	5.20	7.333	5.20	10.33	1.73
1.350	2.17	4.350	5.20	7.350	5.20	10.35	1.73
1.367	2.17	4.367	5.20	7.367	5.20	10.37	1.73
1.383	2.17	4.383	5.20	7.383	5.20	10.38	1.73
1.400	2.17	4.400	5.20	7.400	5.20	10.40	1.73
1.417	2.17	4.417	5.20	7.417	5.20	10.42	1.73
1.433	2.17	4.433	5.20	7.433	5.20	10.43	1.73
1.450	2.17	4.450	5.20	7.450	5.20	10.45	1.73
1.467	2.17	4.467	5.20	7.467	5.20	10.47	1.73
1.483	2.17	4.483	5.20	7.483	5.20	10.48	1.73
1.500	2.17	4.500	5.20	7.500	5.20	10.50	1.73
1.517	2.17	4.517	6.93	7.517	5.20	10.52	1.73
1.533	2.17	4.533	6.93	7.533	5.20	10.53	1.73
1.550	2.17	4.550	6.93	7.550	5.20	10.55	1.73
1.567	2.17	4.567	6.93	7.567	5.20	10.57	1.73
1.583	2.17	4.583	6.93	7.583	5.20	10.58	1.73
1.600	2.17	4.600	6.93	7.600	5.20	10.60	1.73
1.617	2.17	4.617	6.93	7.617	5.20	10.62	1.73
1.633	2.17	4.633	6.93	7.633	5.20	10.63	1.73
1.650	2.17	4.650	6.93	7.650	5.20	10.65	1.73
1.667	2.17	4.667	6.93	7.667	5.20	10.67	1.73
1.683	2.17	4.683	6.93	7.683	5.20	10.68	1.73
1.700	2.17	4.700	6.93	7.700	5.20	10.70	1.73
1.717	2.17	4.717	6.93	7.717	5.20	10.72	1.73
1.733	2.17	4.733	6.93	7.733	5.20	10.73	1.73
1.750	2.17	4.750	6.93	7.750	5.20	10.75	1.73
1.767	2.17	4.767	6.93	7.767	5.20	10.77	1.73
1.783	2.17	4.783	6.93	7.783	5.20	10.78	1.73
1.800	2.17	4.800	6.93	7.800	5.20	10.80	1.73
1.817	2.17	4.817	6.93	7.817	5.20	10.82	1.73
1.833	2.17	4.833	6.93	7.833	5.20	10.83	1.73
1.850	2.17	4.850	6.93	7.850	5.20	10.85	1.73
1.867	2.17	4.867	6.93	7.867	5.20	10.87	1.73
1.883	2.17	4.883	6.93	7.883	5.20	10.88	1.73
1.900	2.17	4.900	6.93	7.900	5.20	10.90	1.73
1.917	2.17	4.917	6.93	7.917	5.20	10.92	1.73
1.933	2.17	4.933	6.93	7.933	5.20	10.93	1.73
1.950	2.17	4.950	6.93	7.950	5.20	10.95	1.73
1.967	2.17	4.967	6.93	7.967	5.20	10.97	1.73
1.983	2.17	4.983	6.93	7.983	5.20	10.98	1.73
2.000	2.17	5.000	6.93	8.000	5.19	11.00	1.73
2.017	2.60	5.017	10.40	8.017	3.03	11.02	1.73
2.033	2.60	5.033	10.40	8.033	3.03	11.03	1.73
2.050	2.60	5.050	10.40	8.050	3.03	11.05	1.73
2.067	2.60	5.067	10.40	8.067	3.03	11.07	1.73
2.083	2.60	5.083	10.40	8.083	3.03	11.08	1.73
2.100	2.60	5.100	10.40	8.100	3.03	11.10	1.73
2.117	2.60	5.117	10.40	8.117	3.03	11.12	1.73
2.133	2.60	5.133	10.40	8.133	3.03	11.13	1.73
2.150	2.60	5.150	10.40	8.150	3.03	11.15	1.73
2.167	2.60	5.167	10.40	8.167	3.03	11.17	1.73

2.183	2.60	5.183	10.40	8.183	3.03	11.18	1.73
2.200	2.60	5.200	10.40	8.200	3.03	11.20	1.73
2.217	2.60	5.217	10.40	8.217	3.03	11.22	1.73
2.233	2.60	5.233	10.40	8.233	3.03	11.23	1.73
2.250	2.60	5.250	10.40	8.250	3.03	11.25	1.73
2.267	2.60	5.267	10.40	8.267	3.03	11.27	1.73
2.283	2.60	5.283	10.40	8.283	3.03	11.28	1.73
2.300	2.60	5.300	10.40	8.300	3.03	11.30	1.73
2.317	2.60	5.317	10.40	8.317	3.03	11.32	1.73
2.333	2.60	5.333	10.40	8.333	3.03	11.33	1.73
2.350	2.60	5.350	10.40	8.350	3.03	11.35	1.73
2.367	2.60	5.367	10.40	8.367	3.03	11.37	1.73
2.383	2.60	5.383	10.40	8.383	3.03	11.38	1.73
2.400	2.60	5.400	10.40	8.400	3.03	11.40	1.73
2.417	2.60	5.417	10.40	8.417	3.03	11.42	1.73
2.433	2.60	5.433	10.40	8.433	3.03	11.43	1.73
2.450	2.60	5.450	10.40	8.450	3.03	11.45	1.73
2.467	2.60	5.467	10.40	8.467	3.03	11.47	1.73
2.483	2.60	5.483	10.40	8.483	3.03	11.48	1.73
2.500	2.60	5.500	10.43	8.500	3.03	11.50	1.73
2.517	2.60	5.517	41.59	8.517	3.03	11.52	1.73
2.533	2.60	5.533	41.59	8.533	3.03	11.53	1.73
2.550	2.60	5.550	41.59	8.550	3.03	11.55	1.73
2.567	2.60	5.567	41.59	8.567	3.03	11.57	1.73
2.583	2.60	5.583	41.59	8.583	3.03	11.58	1.73
2.600	2.60	5.600	41.59	8.600	3.03	11.60	1.73
2.617	2.60	5.617	41.59	8.617	3.03	11.62	1.73
2.633	2.60	5.633	41.59	8.633	3.03	11.63	1.73
2.650	2.60	5.650	41.59	8.650	3.03	11.65	1.73
2.667	2.60	5.667	41.59	8.667	3.03	11.67	1.73
2.683	2.60	5.683	41.59	8.683	3.03	11.68	1.73
2.700	2.60	5.700	41.59	8.700	3.03	11.70	1.73
2.717	2.60	5.717	41.59	8.717	3.03	11.72	1.73
2.733	2.60	5.733	41.59	8.733	3.03	11.73	1.73
2.750	2.60	5.750	41.68	8.750	3.03	11.75	1.73
2.767	2.60	5.767	114.38	8.767	3.03	11.77	1.73
2.783	2.60	5.783	114.38	8.783	3.03	11.78	1.73
2.800	2.60	5.800	114.38	8.800	3.03	11.80	1.73
2.817	2.60	5.817	114.38	8.817	3.03	11.82	1.73
2.833	2.60	5.833	114.38	8.833	3.03	11.83	1.73
2.850	2.60	5.850	114.38	8.850	3.03	11.85	1.73
2.867	2.60	5.867	114.38	8.867	3.03	11.87	1.73
2.883	2.60	5.883	114.38	8.883	3.03	11.88	1.73
2.900	2.60	5.900	114.38	8.900	3.03	11.90	1.73
2.917	2.60	5.917	114.38	8.917	3.03	11.92	1.73
2.933	2.60	5.933	114.38	8.933	3.03	11.93	1.73
2.950	2.60	5.950	114.38	8.950	3.03	11.95	1.73
2.967	2.60	5.967	114.38	8.967	3.03	11.97	1.73
2.983	2.60	5.983	114.38	8.983	3.03	11.98	1.73
3.000	2.60	6.000	114.24	9.000	3.03	12.00	1.73

Max.Eff.Inten.(mm/hr)=	114.38	82.25	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.02 (ii)	10.65 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.31	0.11	
			TOTALS
PEAK FLOW (cms)=	0.39	0.48	0.825 (iii)
TIME TO PEAK (hrs)=	6.00	6.08	6.02
RUNOFF VOLUME (mm)=	85.84	32.03	42.80
TOTAL RAINFALL (mm)=	86.65	86.65	86.65
RUNOFF COEFFICIENT =	0.99	0.37	0.49

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0091)| IN= 2---> OUT= 1 | DT= 1.0 min	OVERFLOW IS ON			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0000	0.0800
	0.0000	0.0500	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0087)	6.260	0.825	6.02	42.80
OUTFLOW: ID= 1 (0091)	0.000	0.000	5.93	30.64
OVERFLOW:ID= 3 (0003)	6.260	1.006	5.93	30.64

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 0.00
TIME SHIFT OF PEAK FLOW (min)= -5.00
MAXIMUM STORAGE USED (ha.m.)= 0.0800

ADD HYD (0083)| 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0081):	13.00	0.429	6.47	22.55
+ ID2= 2 (0082):	1.00	0.143	6.03	57.53
ID = 3 (0083):	14.00	0.467	6.42	25.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0083)| 3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0083):	14.00	0.467	6.42	25.05
+ ID2= 2 (0085):	4.76	0.088	6.83	19.34
ID = 1 (0083):	18.76	0.546	6.48	23.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0083)| 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0083):	18.76	0.546	6.48	23.60
+ ID2= 2 (0086):	15.97	1.939	6.02	41.96
ID = 3 (0083):	34.73	2.281	6.03	32.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0083)| 3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0083):	34.73	2.281	6.03	32.05

```
      + ID2= 2 (  0091):     6.26   1.006     5.93    30.64
        ================================================
        ID = 1 (  0083):    40.99   3.099     6.03    31.83

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0088)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0000     0.0000   |   0.8700      0.5950
                          0.0850     0.3450   |   0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0083)     40.990     3.099      6.03      31.83
   OUTFLOW: ID= 1 (  0088)     40.990     0.859      6.80      30.44

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 27.70
                  TIME SHIFT OF PEAK FLOW         (min)= 46.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.5919

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*******************************
** SIMULATION:Run 02          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\hwalsh\AppD
|                  |              ata\Local\Temp\
|                  |              6c940005-6681-4167-b4db-001c516d3d70\c8cb6f3a
| Ptotal= 79.35 mm |    Comments: 100-Year 12-Hour SCS II Design Storm
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.25    1.98 |  3.25    3.17 |  6.25   14.28 |  9.25    2.78
                0.50    1.98 |  3.50    3.17 |  6.50   14.28 |  9.50    2.78
                0.75    1.98 |  3.75    3.17 |  6.75    6.35 |  9.75    2.78
                1.00    1.98 |  4.00    3.17 |  7.00    6.35 | 10.00    2.78
                1.25    1.98 |  4.25    4.76 |  7.25    4.76 | 10.25    1.59
                1.50    1.98 |  4.50    4.76 |  7.50    4.76 | 10.50    1.59
                1.75    1.98 |  4.75    6.35 |  7.75    4.76 | 10.75    1.59
                2.00    1.98 |  5.00    6.35 |  8.00    4.76 | 11.00    1.59
                2.25    2.38 |  5.25    9.52 |  8.25    2.78 | 11.25    1.59
                2.50    2.38 |  5.50    9.52 |  8.50    2.78 | 11.50    1.59
                2.75    2.38 |  5.75   38.09 |  8.75    2.78 | 11.75    1.59
                3.00    2.38 |  6.00  104.74 |  9.00    2.78 | 12.00    1.59

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--------------------
| CALIB            |
| NASHYD   (  0081)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.


                             ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.017    1.98 | 3.017    3.17 | 6.017   14.28 |  9.02    2.78
               0.033    1.98 | 3.033    3.17 | 6.033   14.28 |  9.03    2.78
               0.050    1.98 | 3.050    3.17 | 6.050   14.28 |  9.05    2.78
               0.067    1.98 | 3.067    3.17 | 6.067   14.28 |  9.07    2.78
               0.083    1.98 | 3.083    3.17 | 6.083   14.28 |  9.08    2.78
```

0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59

1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59

2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.365 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 19.259
TOTAL RAINFALL (mm)= 79.349
RUNOFF COEFFICIENT = 0.243

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (0090)	Area (ha)=	2.27	Curve Number (CN)= 62.0
ID= 1 DT= 1.0 min	Ia (mm)=	8.70	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=	0.28	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78

0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59

1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59

2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Unit Hyd Qpeak (cms)= 0.310

PEAK FLOW (cms)= 0.115 (i)
TIME TO PEAK (hrs)= 6.183
RUNOFF VOLUME (mm)= 22.060
TOTAL RAINFALL (mm)= 79.349
RUNOFF COEFFICIENT = 0.278

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0084)	Area (ha)= 2.49
ID= 1 DT= 1.0 min	Total Imp(%)= 69.00 Dir. Conn.(%)= 23.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.72	0.77
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	128.84	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78

0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59

1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59

2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)=	104.74	130.87		
over (min)	5.00	11.00		
Storage Coeff. (min)=	2.92 (ii)	10.73 (ii)		
Unit Hyd. Tpeak (min)=	5.00	11.00		
Unit Hyd. peak (cms)=	0.31	0.10		
			TOTALS	
PEAK FLOW (cms)=	0.17	0.19	0.334 (iii)	
TIME TO PEAK (hrs)=	6.00	6.08	6.02	
RUNOFF VOLUME (mm)=	78.35	32.54	43.08	
TOTAL RAINFALL (mm)=	79.35	79.35	79.35	
RUNOFF COEFFICIENT =	0.99	0.41	0.54	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0089) 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0084):	2.49	0.334	6.02	43.08
+ ID2= 2 (0090):	2.27	0.115	6.18	22.06
ID = 3 (0089):	4.76	0.418	6.03	33.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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|SOAKAWAY(  0094)|  UNDERDRAIN: OFF
|IN= 2--> OUT= 3 |
|DT=  1.0 MIN    |  STORAGE LAYER:
------------------  Length          (m)= 293.00   Height                 (m)=   1.00
                    Porosity           =   1.00   Initial Water Level     (m)=   0.00
                    Width           (m)=   3.00   Min. Drawdown          (hr)=  24.00
                    Max. Drawdown  (hr)=    Inf   Available Storage   (cu.m.)= 879.00

                    NATIVE SOIL LAYER:
                    Infiltration (m/hr) = 0.0000

                       AREA         QPEAK            TPEAK         R.V.
                       (ha)         (cms)            (hrs)         (mm)
      INFLOW:ID= 2     4.76         0.418             6.03        33.05
    OVERFLOW:ID= 3     4.76         0.184             6.42        14.59

               Volume Reduction Rate[(RVin-RVout)/RVin](%):
                          If RVout= (Overflow             )=       55.87
               Time to reach Max storage              (Hr)=        6.40
               Volume of water for drawdown in LID (cu.m.)=      879.00
               Volume of maximum water storage     (cu.m.)=      879.00
               ***** After simulation, water volume is not zero.

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  | Junction Command(0095) |
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                           AREA     QPEAK   TPEAK     R.V.
                           (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 3(  0094)    4.76     0.18    6.42    14.59
  OUTFLOW: ID= 2(  0095)    4.76     0.18    6.42    14.59

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--------------------
| RESERVOIR(  0085)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.2560      0.0427
                          0.0390     0.0003   |   0.3340      0.0542
                          0.0650     0.0049   |   0.3650      0.0594
                          0.0830     0.0142   |   0.3770      0.0614
                          0.0880     0.0193   |   0.3880      0.0634
                          0.1330     0.0285   |   0.3990      0.0652
                          0.1720     0.0336   |   0.4140      0.0679
                          0.2210     0.0393   |   0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0095)      4.760      0.184      6.42      14.59
   OUTFLOW: ID= 1 (  0085)      4.760      0.074      6.87      14.59

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 40.16
                  TIME SHIFT OF PEAK FLOW         (min)= 27.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0095

     **** WARNING : HYDROGRAPH WAS CUT. CHECK VOLUME.
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--------------------
| CALIB            |
| STANDHYD (  0082)|   Area    (ha)=   1.00
|ID= 1 DT= 1.0 min |   Total Imp(%)=  55.00   Dir. Conn.(%)=  55.00
--------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.55         0.45
     Dep. Storage     (mm)=       0.80         1.50
     Average Slope     (%)=       0.01         0.01
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Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78

1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59

2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)=	104.74	11.51	
over (min)	9.00	91.00	
Storage Coeff. (min)=	8.84 (ii)	90.98 (ii)	
Unit Hyd. Tpeak (min)=	9.00	91.00	
Unit Hyd. peak (cms)=	0.13	0.01	
			TOTALS
PEAK FLOW (cms)=	0.13	0.01	0.130 (iii)
TIME TO PEAK (hrs)=	6.03	7.45	6.03
RUNOFF VOLUME (mm)=	78.55	19.68	52.01
TOTAL RAINFALL (mm)=	79.35	79.35	79.35
RUNOFF COEFFICIENT =	0.99	0.25	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0086) ID= 1 DT= 1.0 min	Area (ha)= 15.97 Total Imp(%)= 45.00 Dir. Conn.(%)= 22.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.19	8.78
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	326.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78
0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78

0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59
1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59

1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59
2.917	2.38	5.917	104.74	8.917	2.78	11.92	1.59
2.933	2.38	5.933	104.74	8.933	2.78	11.93	1.59
2.950	2.38	5.950	104.74	8.950	2.78	11.95	1.59
2.967	2.38	5.967	104.74	8.967	2.78	11.97	1.59
2.983	2.38	5.983	104.74	8.983	2.78	11.98	1.59
3.000	2.38	6.000	104.62	9.000	2.78	12.00	1.59

Max.Eff.Inten.(mm/hr)=	104.74	58.05
over (min)	5.00	13.00
Storage Coeff. (min)=	4.14 (ii)	12.91 (ii)
Unit Hyd. Tpeak (min)=	5.00	13.00
Unit Hyd. peak (cms)=	0.26	0.09

				TOTALS
PEAK FLOW	(cms)=	0.99	0.86	1.704 (iii)
TIME TO PEAK	(hrs)=	6.00	6.12	6.02
RUNOFF VOLUME	(mm)=	78.54	25.50	37.17
TOTAL RAINFALL	(mm)=	79.35	79.35	79.35
RUNOFF COEFFICIENT	=	0.99	0.32	0.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0087)	Area (ha)=	6.26	
ID= 1 DT= 1.0 min	Total Imp(%)=	50.00	Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.98	3.017	3.17	6.017	14.28	9.02	2.78
0.033	1.98	3.033	3.17	6.033	14.28	9.03	2.78
0.050	1.98	3.050	3.17	6.050	14.28	9.05	2.78
0.067	1.98	3.067	3.17	6.067	14.28	9.07	2.78
0.083	1.98	3.083	3.17	6.083	14.28	9.08	2.78
0.100	1.98	3.100	3.17	6.100	14.28	9.10	2.78
0.117	1.98	3.117	3.17	6.117	14.28	9.12	2.78
0.133	1.98	3.133	3.17	6.133	14.28	9.13	2.78
0.150	1.98	3.150	3.17	6.150	14.28	9.15	2.78
0.167	1.98	3.167	3.17	6.167	14.28	9.17	2.78
0.183	1.98	3.183	3.17	6.183	14.28	9.18	2.78
0.200	1.98	3.200	3.17	6.200	14.28	9.20	2.78
0.217	1.98	3.217	3.17	6.217	14.28	9.22	2.78
0.233	1.98	3.233	3.17	6.233	14.28	9.23	2.78
0.250	1.98	3.250	3.17	6.250	14.28	9.25	2.78
0.267	1.98	3.267	3.17	6.267	14.28	9.27	2.78
0.283	1.98	3.283	3.17	6.283	14.28	9.28	2.78
0.300	1.98	3.300	3.17	6.300	14.28	9.30	2.78
0.317	1.98	3.317	3.17	6.317	14.28	9.32	2.78
0.333	1.98	3.333	3.17	6.333	14.28	9.33	2.78
0.350	1.98	3.350	3.17	6.350	14.28	9.35	2.78
0.367	1.98	3.367	3.17	6.367	14.28	9.37	2.78
0.383	1.98	3.383	3.17	6.383	14.28	9.38	2.78
0.400	1.98	3.400	3.17	6.400	14.28	9.40	2.78
0.417	1.98	3.417	3.17	6.417	14.28	9.42	2.78
0.433	1.98	3.433	3.17	6.433	14.28	9.43	2.78
0.450	1.98	3.450	3.17	6.450	14.28	9.45	2.78
0.467	1.98	3.467	3.17	6.467	14.28	9.47	2.78
0.483	1.98	3.483	3.17	6.483	14.28	9.48	2.78
0.500	1.98	3.500	3.17	6.500	14.27	9.50	2.78
0.517	1.98	3.517	3.17	6.517	6.35	9.52	2.78
0.533	1.98	3.533	3.17	6.533	6.35	9.53	2.78
0.550	1.98	3.550	3.17	6.550	6.35	9.55	2.78
0.567	1.98	3.567	3.17	6.567	6.35	9.57	2.78
0.583	1.98	3.583	3.17	6.583	6.35	9.58	2.78
0.600	1.98	3.600	3.17	6.600	6.35	9.60	2.78

0.617	1.98	3.617	3.17	6.617	6.35	9.62	2.78
0.633	1.98	3.633	3.17	6.633	6.35	9.63	2.78
0.650	1.98	3.650	3.17	6.650	6.35	9.65	2.78
0.667	1.98	3.667	3.17	6.667	6.35	9.67	2.78
0.683	1.98	3.683	3.17	6.683	6.35	9.68	2.78
0.700	1.98	3.700	3.17	6.700	6.35	9.70	2.78
0.717	1.98	3.717	3.17	6.717	6.35	9.72	2.78
0.733	1.98	3.733	3.17	6.733	6.35	9.73	2.78
0.750	1.98	3.750	3.17	6.750	6.35	9.75	2.78
0.767	1.98	3.767	3.17	6.767	6.35	9.77	2.78
0.783	1.98	3.783	3.17	6.783	6.35	9.78	2.78
0.800	1.98	3.800	3.17	6.800	6.35	9.80	2.78
0.817	1.98	3.817	3.17	6.817	6.35	9.82	2.78
0.833	1.98	3.833	3.17	6.833	6.35	9.83	2.78
0.850	1.98	3.850	3.17	6.850	6.35	9.85	2.78
0.867	1.98	3.867	3.17	6.867	6.35	9.87	2.78
0.883	1.98	3.883	3.17	6.883	6.35	9.88	2.78
0.900	1.98	3.900	3.17	6.900	6.35	9.90	2.78
0.917	1.98	3.917	3.17	6.917	6.35	9.92	2.78
0.933	1.98	3.933	3.17	6.933	6.35	9.93	2.78
0.950	1.98	3.950	3.17	6.950	6.35	9.95	2.78
0.967	1.98	3.967	3.17	6.967	6.35	9.97	2.78
0.983	1.98	3.983	3.17	6.983	6.35	9.98	2.78
1.000	1.98	4.000	3.17	7.000	6.34	10.00	2.78
1.017	1.98	4.017	4.76	7.017	4.76	10.02	1.59
1.033	1.98	4.033	4.76	7.033	4.76	10.03	1.59
1.050	1.98	4.050	4.76	7.050	4.76	10.05	1.59
1.067	1.98	4.067	4.76	7.067	4.76	10.07	1.59
1.083	1.98	4.083	4.76	7.083	4.76	10.08	1.59
1.100	1.98	4.100	4.76	7.100	4.76	10.10	1.59
1.117	1.98	4.117	4.76	7.117	4.76	10.12	1.59
1.133	1.98	4.133	4.76	7.133	4.76	10.13	1.59
1.150	1.98	4.150	4.76	7.150	4.76	10.15	1.59
1.167	1.98	4.167	4.76	7.167	4.76	10.17	1.59
1.183	1.98	4.183	4.76	7.183	4.76	10.18	1.59
1.200	1.98	4.200	4.76	7.200	4.76	10.20	1.59
1.217	1.98	4.217	4.76	7.217	4.76	10.22	1.59
1.233	1.98	4.233	4.76	7.233	4.76	10.23	1.59
1.250	1.98	4.250	4.76	7.250	4.76	10.25	1.59
1.267	1.98	4.267	4.76	7.267	4.76	10.27	1.59
1.283	1.98	4.283	4.76	7.283	4.76	10.28	1.59
1.300	1.98	4.300	4.76	7.300	4.76	10.30	1.59
1.317	1.98	4.317	4.76	7.317	4.76	10.32	1.59
1.333	1.98	4.333	4.76	7.333	4.76	10.33	1.59
1.350	1.98	4.350	4.76	7.350	4.76	10.35	1.59
1.367	1.98	4.367	4.76	7.367	4.76	10.37	1.59
1.383	1.98	4.383	4.76	7.383	4.76	10.38	1.59
1.400	1.98	4.400	4.76	7.400	4.76	10.40	1.59
1.417	1.98	4.417	4.76	7.417	4.76	10.42	1.59
1.433	1.98	4.433	4.76	7.433	4.76	10.43	1.59
1.450	1.98	4.450	4.76	7.450	4.76	10.45	1.59
1.467	1.98	4.467	4.76	7.467	4.76	10.47	1.59
1.483	1.98	4.483	4.76	7.483	4.76	10.48	1.59
1.500	1.98	4.500	4.76	7.500	4.76	10.50	1.59
1.517	1.98	4.517	6.35	7.517	4.76	10.52	1.59
1.533	1.98	4.533	6.35	7.533	4.76	10.53	1.59
1.550	1.98	4.550	6.35	7.550	4.76	10.55	1.59
1.567	1.98	4.567	6.35	7.567	4.76	10.57	1.59
1.583	1.98	4.583	6.35	7.583	4.76	10.58	1.59
1.600	1.98	4.600	6.35	7.600	4.76	10.60	1.59
1.617	1.98	4.617	6.35	7.617	4.76	10.62	1.59
1.633	1.98	4.633	6.35	7.633	4.76	10.63	1.59
1.650	1.98	4.650	6.35	7.650	4.76	10.65	1.59
1.667	1.98	4.667	6.35	7.667	4.76	10.67	1.59
1.683	1.98	4.683	6.35	7.683	4.76	10.68	1.59
1.700	1.98	4.700	6.35	7.700	4.76	10.70	1.59
1.717	1.98	4.717	6.35	7.717	4.76	10.72	1.59
1.733	1.98	4.733	6.35	7.733	4.76	10.73	1.59
1.750	1.98	4.750	6.35	7.750	4.76	10.75	1.59

1.767	1.98	4.767	6.35	7.767	4.76	10.77	1.59
1.783	1.98	4.783	6.35	7.783	4.76	10.78	1.59
1.800	1.98	4.800	6.35	7.800	4.76	10.80	1.59
1.817	1.98	4.817	6.35	7.817	4.76	10.82	1.59
1.833	1.98	4.833	6.35	7.833	4.76	10.83	1.59
1.850	1.98	4.850	6.35	7.850	4.76	10.85	1.59
1.867	1.98	4.867	6.35	7.867	4.76	10.87	1.59
1.883	1.98	4.883	6.35	7.883	4.76	10.88	1.59
1.900	1.98	4.900	6.35	7.900	4.76	10.90	1.59
1.917	1.98	4.917	6.35	7.917	4.76	10.92	1.59
1.933	1.98	4.933	6.35	7.933	4.76	10.93	1.59
1.950	1.98	4.950	6.35	7.950	4.76	10.95	1.59
1.967	1.98	4.967	6.35	7.967	4.76	10.97	1.59
1.983	1.98	4.983	6.35	7.983	4.76	10.98	1.59
2.000	1.98	5.000	6.35	8.000	4.76	11.00	1.59
2.017	2.38	5.017	9.52	8.017	2.78	11.02	1.59
2.033	2.38	5.033	9.52	8.033	2.78	11.03	1.59
2.050	2.38	5.050	9.52	8.050	2.78	11.05	1.59
2.067	2.38	5.067	9.52	8.067	2.78	11.07	1.59
2.083	2.38	5.083	9.52	8.083	2.78	11.08	1.59
2.100	2.38	5.100	9.52	8.100	2.78	11.10	1.59
2.117	2.38	5.117	9.52	8.117	2.78	11.12	1.59
2.133	2.38	5.133	9.52	8.133	2.78	11.13	1.59
2.150	2.38	5.150	9.52	8.150	2.78	11.15	1.59
2.167	2.38	5.167	9.52	8.167	2.78	11.17	1.59
2.183	2.38	5.183	9.52	8.183	2.78	11.18	1.59
2.200	2.38	5.200	9.52	8.200	2.78	11.20	1.59
2.217	2.38	5.217	9.52	8.217	2.78	11.22	1.59
2.233	2.38	5.233	9.52	8.233	2.78	11.23	1.59
2.250	2.38	5.250	9.52	8.250	2.78	11.25	1.59
2.267	2.38	5.267	9.52	8.267	2.78	11.27	1.59
2.283	2.38	5.283	9.52	8.283	2.78	11.28	1.59
2.300	2.38	5.300	9.52	8.300	2.78	11.30	1.59
2.317	2.38	5.317	9.52	8.317	2.78	11.32	1.59
2.333	2.38	5.333	9.52	8.333	2.78	11.33	1.59
2.350	2.38	5.350	9.52	8.350	2.78	11.35	1.59
2.367	2.38	5.367	9.52	8.367	2.78	11.37	1.59
2.383	2.38	5.383	9.52	8.383	2.78	11.38	1.59
2.400	2.38	5.400	9.52	8.400	2.78	11.40	1.59
2.417	2.38	5.417	9.52	8.417	2.78	11.42	1.59
2.433	2.38	5.433	9.52	8.433	2.78	11.43	1.59
2.450	2.38	5.450	9.52	8.450	2.78	11.45	1.59
2.467	2.38	5.467	9.52	8.467	2.78	11.47	1.59
2.483	2.38	5.483	9.52	8.483	2.78	11.48	1.59
2.500	2.38	5.500	9.55	8.500	2.78	11.50	1.59
2.517	2.38	5.517	38.09	8.517	2.78	11.52	1.59
2.533	2.38	5.533	38.09	8.533	2.78	11.53	1.59
2.550	2.38	5.550	38.09	8.550	2.78	11.55	1.59
2.567	2.38	5.567	38.09	8.567	2.78	11.57	1.59
2.583	2.38	5.583	38.09	8.583	2.78	11.58	1.59
2.600	2.38	5.600	38.09	8.600	2.78	11.60	1.59
2.617	2.38	5.617	38.09	8.617	2.78	11.62	1.59
2.633	2.38	5.633	38.09	8.633	2.78	11.63	1.59
2.650	2.38	5.650	38.09	8.650	2.78	11.65	1.59
2.667	2.38	5.667	38.09	8.667	2.78	11.67	1.59
2.683	2.38	5.683	38.09	8.683	2.78	11.68	1.59
2.700	2.38	5.700	38.09	8.700	2.78	11.70	1.59
2.717	2.38	5.717	38.09	8.717	2.78	11.72	1.59
2.733	2.38	5.733	38.09	8.733	2.78	11.73	1.59
2.750	2.38	5.750	38.17	8.750	2.78	11.75	1.59
2.767	2.38	5.767	104.74	8.767	2.78	11.77	1.59
2.783	2.38	5.783	104.74	8.783	2.78	11.78	1.59
2.800	2.38	5.800	104.74	8.800	2.78	11.80	1.59
2.817	2.38	5.817	104.74	8.817	2.78	11.82	1.59
2.833	2.38	5.833	104.74	8.833	2.78	11.83	1.59
2.850	2.38	5.850	104.74	8.850	2.78	11.85	1.59
2.867	2.38	5.867	104.74	8.867	2.78	11.87	1.59
2.883	2.38	5.883	104.74	8.883	2.78	11.88	1.59
2.900	2.38	5.900	104.74	8.900	2.78	11.90	1.59

```
               2.917    2.38 | 5.917  104.74 | 8.917    2.78 | 11.92    1.59
               2.933    2.38 | 5.933  104.74 | 8.933    2.78 | 11.93    1.59
               2.950    2.38 | 5.950  104.74 | 8.950    2.78 | 11.95    1.59
               2.967    2.38 | 5.967  104.74 | 8.967    2.78 | 11.97    1.59
               2.983    2.38 | 5.983  104.74 | 8.983    2.78 | 11.98    1.59
               3.000    2.38 | 6.000  104.62 | 9.000    2.78 | 12.00    1.59

     Max.Eff.Inten.(mm/hr)=     104.74        71.11
               over (min)        5.00        12.00
     Storage Coeff.  (min)=       3.13 (ii)   11.22 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.00
     Unit Hyd. peak  (cms)=       0.30         0.10
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.36         0.40          0.709 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.10           6.02
     RUNOFF VOLUME    (mm)=      78.54        27.69          37.86
     TOTAL RAINFALL   (mm)=      79.35        79.35          79.35
     RUNOFF COEFFICIENT   =       0.99         0.35           0.48

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0091)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.0000      0.0800
                          0.0000     0.0500   |   0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0087)      6.260      0.709      6.02      37.86
   OUTFLOW: ID= 1 (  0091)      0.000      0.000      5.98      25.24
   OVERFLOW:ID= 3 (  0003)      6.260      0.748      5.98      25.24

                  TOTAL NUMBER OF SIMULATION OVERFLOW  =     0
                  CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                  PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  0.00
                  TIME SHIFT OF PEAK FLOW         (min)= -2.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0800

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0081):    13.00   0.365     6.47    19.26
      + ID2= 2 (  0082):     1.00   0.130     6.03    52.01
        ================================================
        ID = 3 (  0083):    14.00   0.400     6.42    21.60

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
```

```
        ID1= 3 (  0083):    14.00   0.400     6.42    21.60
      + ID2= 2 (  0085):     4.76   0.074     6.87    14.59
        ================================================
        ID = 1 (  0083):    18.76   0.460     6.52    19.82

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0083):    18.76   0.460     6.52    19.82
      + ID2= 2 (  0086):    15.97   1.704     6.02    37.17
        ================================================
        ID = 3 (  0083):    34.73   1.999     6.03    27.80

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0083):    34.73   1.999     6.03    27.80
      + ID2= 2 (  0091):     6.26   0.748     5.98    25.24
        ================================================
        ID = 1 (  0083):    40.99   2.703     6.03    27.41

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0088)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0000     0.0000   |   0.8700      0.5950
                          0.0850     0.3450   |   0.0000      0.0000

                               AREA     QPEAK     TPEAK       R.V.
                               (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0083)     40.990      2.703      6.03      27.41
   OUTFLOW: ID= 1 (  0088)     40.990      0.664      6.92      26.03

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 24.57
                  TIME SHIFT OF PEAK FLOW         (min)= 53.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.5397

--------------------------------------------------------------------------------
********************************
** SIMULATION:Run 03          **
********************************

--------------------
|    READ STORM    |    Filename: C:\Users\hwalsh\AppD
|                  |              ata\Local\Temp\
|                  |              6c940005-6681-4167-b4db-001c516d3d70\61de9e40
| Ptotal= 72.29 mm |    Comments: 100-Year 12-Hour SCS II Design Storm
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.25    1.81 |  3.25    2.89 |  6.25   13.01 |  9.25    2.53
                0.50    1.81 |  3.50    2.89 |  6.50   13.01 |  9.50    2.53
                0.75    1.81 |  3.75    2.89 |  6.75    5.78 |  9.75    2.53
                1.00    1.81 |  4.00    2.89 |  7.00    5.78 | 10.00    2.53
                1.25    1.81 |  4.25    4.34 |  7.25    4.34 | 10.25    1.45
                1.50    1.81 |  4.50    4.34 |  7.50    4.34 | 10.50    1.45
                1.75    1.81 |  4.75    5.78 |  7.75    4.34 | 10.75    1.45
```

2.00	1.81	5.00	5.78	8.00	4.34	11.00	1.45
2.25	2.17	5.25	8.67	8.25	2.53	11.25	1.45
2.50	2.17	5.50	8.67	8.50	2.53	11.50	1.45
2.75	2.17	5.75	34.70	8.75	2.53	11.75	1.45
3.00	2.17	6.00	95.42	9.00	2.53	12.00	1.45

CALIB NASHYD (0081)	Area (ha)= 13.00	Curve Number (CN)= 52.5
ID= 1 DT= 1.0 min	Ia (mm)= 2.50	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.52	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53

0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45

1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.308 (i)
TIME TO PEAK (hrs)= 6.467
RUNOFF VOLUME (mm)= 16.257
TOTAL RAINFALL (mm)= 72.289

RUNOFF COEFFICIENT = 0.225

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0090) | ID= 1 DT= 1.0 min	Area (ha)= 2.27 Curve Number (CN)= 62.0 Ia (mm)= 8.70 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.28

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53

0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45

2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Unit Hyd Qpeak (cms)= 0.310

PEAK FLOW (cms)= 0.095 (i)
TIME TO PEAK (hrs)= 6.183
RUNOFF VOLUME (mm)= 18.447
TOTAL RAINFALL (mm)= 72.289
RUNOFF COEFFICIENT = 0.255

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0084)|   Area    (ha)=   2.49
|ID= 1 DT= 1.0 min |   Total Imp(%)=  69.00   Dir. Conn.(%)=  23.00
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                           IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.72         0.77
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       1.00         2.00
     Length            (m)=     128.84        40.00
     Mannings n             =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53

0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45

1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Max.Eff.Inten.(mm/hr)=	95.42	112.51
over (min)	5.00	12.00
Storage Coeff. (min)=	3.03 (ii)	11.13 (ii)
Unit Hyd. Tpeak (min)=	5.00	12.00
Unit Hyd. peak (cms)=	0.31	0.10

TOTALS

```
     PEAK FLOW       (cms)=       0.15         0.16          0.287 (iii)
     TIME TO PEAK    (hrs)=       6.00         6.10           6.02
     RUNOFF VOLUME    (mm)=      71.29        27.95          37.91
     TOTAL RAINFALL   (mm)=      72.29        72.29          72.29
     RUNOFF COEFFICIENT   =       0.99         0.39           0.52


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0089)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0084):     2.49   0.287     6.02    37.91
      + ID2= 2 (  0090):     2.27   0.095     6.18    18.45
        ================================================
        ID = 3 (  0089):     4.76   0.356     6.03    28.63

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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------------------
|SOAKAWAY(  0094)|  UNDERDRAIN: OFF
|IN= 2--> OUT= 3 |
|DT=  1.0 MIN    |  STORAGE LAYER:
------------------  Length          (m)= 293.00   Height                 (m)=   1.00
                    Porosity           =   1.00   Initial Water Level    (m)=   0.00
                    Width           (m)=   3.00   Min. Drawdown         (hr)=  24.00
                    Max. Drawdown  (hr)=    Inf   Available Storage   (cu.m.)= 879.00

                    NATIVE SOIL LAYER:
                    Infiltration (m/hr) = 0.0000

                       AREA         QPEAK            TPEAK         R.V.
                       (ha)         (cms)            (hrs)         (mm)
      INFLOW:ID= 2     4.76         0.356             6.03        28.63
    OVERFLOW:ID= 3     4.76         0.093             6.68        10.16

               Volume Reduction Rate[(RVin-RVout)/RVin](%):
                         If RVout= (Overflow            )=       64.50
               Time to reach Max storage             (Hr)=        6.67
               Volume of water for drawdown in LID (cu.m.)=      879.00
               Volume of maximum water storage     (cu.m.)=      879.00
               ***** After simulation, water volume is not zero.

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  | Junction Command(0095) |
  --------------------------

                           AREA     QPEAK   TPEAK     R.V.
                           (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 3(  0094)    4.76     0.09    6.68    10.16
  OUTFLOW: ID= 2(  0095)    4.76     0.09    6.68    10.16

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--------------------
| RESERVOIR(  0085)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.2560      0.0427
                          0.0390     0.0003   |   0.3340      0.0542
                          0.0650     0.0049   |   0.3650      0.0594
                          0.0830     0.0142   |   0.3770      0.0614
```

0.0880	0.0193	0.3880	0.0634
0.1330	0.0285	0.3990	0.0652
0.1720	0.0336	0.4140	0.0679
0.2210	0.0393	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0095)	4.760	0.093	6.68	10.16
OUTFLOW: ID= 1 (0085)	4.760	0.053	7.02	10.16

PEAK FLOW REDUCTION [Qout/Qin](%)= 57.30
TIME SHIFT OF PEAK FLOW (min)= 20.00
MAXIMUM STORAGE USED (ha.m.)= 0.0028

**** WARNING : HYDROGRAPH WAS CUT. CHECK VOLUME.

CALIB STANDHYD (0082) ID= 1 DT= 1.0 min	Area (ha)= 1.00 Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.55	0.45
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	0.01	0.01
Length	(m)=	81.65	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53

0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45

1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45

2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Max.Eff.Inten.(mm/hr)=	95.42	9.72	
over (min)	9.00	98.00	
Storage Coeff. (min)=	9.18 (ii)	97.06 (ii)	
Unit Hyd. Tpeak (min)=	9.00	98.00	
Unit Hyd. peak (cms)=	0.12	0.01	
			TOTALS
PEAK FLOW (cms)=	0.12	0.01	0.117 (iii)
TIME TO PEAK (hrs)=	6.03	7.57	6.03
RUNOFF VOLUME (mm)=	71.48	16.66	46.76
TOTAL RAINFALL (mm)=	72.29	72.29	72.29
RUNOFF COEFFICIENT =	0.99	0.23	0.65

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0086)
ID= 1 DT= 1.0 min

Area (ha)= 15.97
Total Imp(%)= 45.00 Dir. Conn.(%)= 22.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.19	8.78
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	326.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53
0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53

0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45
1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45

1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45
2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45

2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Max.Eff.Inten.(mm/hr)=	95.42	49.50		
over (min)	5.00	14.00		
Storage Coeff. (min)=	4.30 (ii)	13.65 (ii)		
Unit Hyd. Tpeak (min)=	5.00	14.00		
Unit Hyd. peak (cms)=	0.25	0.08		
			TOTALS	
PEAK FLOW (cms)=	0.90	0.71	1.461 (iii)	
TIME TO PEAK (hrs)=	6.00	6.13	6.02	
RUNOFF VOLUME (mm)=	71.48	21.75	32.69	
TOTAL RAINFALL (mm)=	72.29	72.29	72.29	
RUNOFF COEFFICIENT =	0.99	0.30	0.45	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0087)
ID= 1 DT= 1.0 min

Area (ha)= 6.26
Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	1.81	3.017	2.89	6.017	13.01	9.02	2.53
0.033	1.81	3.033	2.89	6.033	13.01	9.03	2.53
0.050	1.81	3.050	2.89	6.050	13.01	9.05	2.53
0.067	1.81	3.067	2.89	6.067	13.01	9.07	2.53
0.083	1.81	3.083	2.89	6.083	13.01	9.08	2.53
0.100	1.81	3.100	2.89	6.100	13.01	9.10	2.53
0.117	1.81	3.117	2.89	6.117	13.01	9.12	2.53
0.133	1.81	3.133	2.89	6.133	13.01	9.13	2.53
0.150	1.81	3.150	2.89	6.150	13.01	9.15	2.53
0.167	1.81	3.167	2.89	6.167	13.01	9.17	2.53
0.183	1.81	3.183	2.89	6.183	13.01	9.18	2.53

0.200	1.81	3.200	2.89	6.200	13.01	9.20	2.53
0.217	1.81	3.217	2.89	6.217	13.01	9.22	2.53
0.233	1.81	3.233	2.89	6.233	13.01	9.23	2.53
0.250	1.81	3.250	2.89	6.250	13.01	9.25	2.53
0.267	1.81	3.267	2.89	6.267	13.01	9.27	2.53
0.283	1.81	3.283	2.89	6.283	13.01	9.28	2.53
0.300	1.81	3.300	2.89	6.300	13.01	9.30	2.53
0.317	1.81	3.317	2.89	6.317	13.01	9.32	2.53
0.333	1.81	3.333	2.89	6.333	13.01	9.33	2.53
0.350	1.81	3.350	2.89	6.350	13.01	9.35	2.53
0.367	1.81	3.367	2.89	6.367	13.01	9.37	2.53
0.383	1.81	3.383	2.89	6.383	13.01	9.38	2.53
0.400	1.81	3.400	2.89	6.400	13.01	9.40	2.53
0.417	1.81	3.417	2.89	6.417	13.01	9.42	2.53
0.433	1.81	3.433	2.89	6.433	13.01	9.43	2.53
0.450	1.81	3.450	2.89	6.450	13.01	9.45	2.53
0.467	1.81	3.467	2.89	6.467	13.01	9.47	2.53
0.483	1.81	3.483	2.89	6.483	13.01	9.48	2.53
0.500	1.81	3.500	2.89	6.500	13.00	9.50	2.53
0.517	1.81	3.517	2.89	6.517	5.78	9.52	2.53
0.533	1.81	3.533	2.89	6.533	5.78	9.53	2.53
0.550	1.81	3.550	2.89	6.550	5.78	9.55	2.53
0.567	1.81	3.567	2.89	6.567	5.78	9.57	2.53
0.583	1.81	3.583	2.89	6.583	5.78	9.58	2.53
0.600	1.81	3.600	2.89	6.600	5.78	9.60	2.53
0.617	1.81	3.617	2.89	6.617	5.78	9.62	2.53
0.633	1.81	3.633	2.89	6.633	5.78	9.63	2.53
0.650	1.81	3.650	2.89	6.650	5.78	9.65	2.53
0.667	1.81	3.667	2.89	6.667	5.78	9.67	2.53
0.683	1.81	3.683	2.89	6.683	5.78	9.68	2.53
0.700	1.81	3.700	2.89	6.700	5.78	9.70	2.53
0.717	1.81	3.717	2.89	6.717	5.78	9.72	2.53
0.733	1.81	3.733	2.89	6.733	5.78	9.73	2.53
0.750	1.81	3.750	2.89	6.750	5.78	9.75	2.53
0.767	1.81	3.767	2.89	6.767	5.78	9.77	2.53
0.783	1.81	3.783	2.89	6.783	5.78	9.78	2.53
0.800	1.81	3.800	2.89	6.800	5.78	9.80	2.53
0.817	1.81	3.817	2.89	6.817	5.78	9.82	2.53
0.833	1.81	3.833	2.89	6.833	5.78	9.83	2.53
0.850	1.81	3.850	2.89	6.850	5.78	9.85	2.53
0.867	1.81	3.867	2.89	6.867	5.78	9.87	2.53
0.883	1.81	3.883	2.89	6.883	5.78	9.88	2.53
0.900	1.81	3.900	2.89	6.900	5.78	9.90	2.53
0.917	1.81	3.917	2.89	6.917	5.78	9.92	2.53
0.933	1.81	3.933	2.89	6.933	5.78	9.93	2.53
0.950	1.81	3.950	2.89	6.950	5.78	9.95	2.53
0.967	1.81	3.967	2.89	6.967	5.78	9.97	2.53
0.983	1.81	3.983	2.89	6.983	5.78	9.98	2.53
1.000	1.81	4.000	2.89	7.000	5.78	10.00	2.53
1.017	1.81	4.017	4.34	7.017	4.34	10.02	1.45
1.033	1.81	4.033	4.34	7.033	4.34	10.03	1.45
1.050	1.81	4.050	4.34	7.050	4.34	10.05	1.45
1.067	1.81	4.067	4.34	7.067	4.34	10.07	1.45
1.083	1.81	4.083	4.34	7.083	4.34	10.08	1.45
1.100	1.81	4.100	4.34	7.100	4.34	10.10	1.45
1.117	1.81	4.117	4.34	7.117	4.34	10.12	1.45
1.133	1.81	4.133	4.34	7.133	4.34	10.13	1.45
1.150	1.81	4.150	4.34	7.150	4.34	10.15	1.45
1.167	1.81	4.167	4.34	7.167	4.34	10.17	1.45
1.183	1.81	4.183	4.34	7.183	4.34	10.18	1.45
1.200	1.81	4.200	4.34	7.200	4.34	10.20	1.45
1.217	1.81	4.217	4.34	7.217	4.34	10.22	1.45
1.233	1.81	4.233	4.34	7.233	4.34	10.23	1.45
1.250	1.81	4.250	4.34	7.250	4.34	10.25	1.45
1.267	1.81	4.267	4.34	7.267	4.34	10.27	1.45
1.283	1.81	4.283	4.34	7.283	4.34	10.28	1.45
1.300	1.81	4.300	4.34	7.300	4.34	10.30	1.45
1.317	1.81	4.317	4.34	7.317	4.34	10.32	1.45
1.333	1.81	4.333	4.34	7.333	4.34	10.33	1.45

1.350	1.81	4.350	4.34	7.350	4.34	10.35	1.45
1.367	1.81	4.367	4.34	7.367	4.34	10.37	1.45
1.383	1.81	4.383	4.34	7.383	4.34	10.38	1.45
1.400	1.81	4.400	4.34	7.400	4.34	10.40	1.45
1.417	1.81	4.417	4.34	7.417	4.34	10.42	1.45
1.433	1.81	4.433	4.34	7.433	4.34	10.43	1.45
1.450	1.81	4.450	4.34	7.450	4.34	10.45	1.45
1.467	1.81	4.467	4.34	7.467	4.34	10.47	1.45
1.483	1.81	4.483	4.34	7.483	4.34	10.48	1.45
1.500	1.81	4.500	4.34	7.500	4.34	10.50	1.45
1.517	1.81	4.517	5.78	7.517	4.34	10.52	1.45
1.533	1.81	4.533	5.78	7.533	4.34	10.53	1.45
1.550	1.81	4.550	5.78	7.550	4.34	10.55	1.45
1.567	1.81	4.567	5.78	7.567	4.34	10.57	1.45
1.583	1.81	4.583	5.78	7.583	4.34	10.58	1.45
1.600	1.81	4.600	5.78	7.600	4.34	10.60	1.45
1.617	1.81	4.617	5.78	7.617	4.34	10.62	1.45
1.633	1.81	4.633	5.78	7.633	4.34	10.63	1.45
1.650	1.81	4.650	5.78	7.650	4.34	10.65	1.45
1.667	1.81	4.667	5.78	7.667	4.34	10.67	1.45
1.683	1.81	4.683	5.78	7.683	4.34	10.68	1.45
1.700	1.81	4.700	5.78	7.700	4.34	10.70	1.45
1.717	1.81	4.717	5.78	7.717	4.34	10.72	1.45
1.733	1.81	4.733	5.78	7.733	4.34	10.73	1.45
1.750	1.81	4.750	5.78	7.750	4.34	10.75	1.45
1.767	1.81	4.767	5.78	7.767	4.34	10.77	1.45
1.783	1.81	4.783	5.78	7.783	4.34	10.78	1.45
1.800	1.81	4.800	5.78	7.800	4.34	10.80	1.45
1.817	1.81	4.817	5.78	7.817	4.34	10.82	1.45
1.833	1.81	4.833	5.78	7.833	4.34	10.83	1.45
1.850	1.81	4.850	5.78	7.850	4.34	10.85	1.45
1.867	1.81	4.867	5.78	7.867	4.34	10.87	1.45
1.883	1.81	4.883	5.78	7.883	4.34	10.88	1.45
1.900	1.81	4.900	5.78	7.900	4.34	10.90	1.45
1.917	1.81	4.917	5.78	7.917	4.34	10.92	1.45
1.933	1.81	4.933	5.78	7.933	4.34	10.93	1.45
1.950	1.81	4.950	5.78	7.950	4.34	10.95	1.45
1.967	1.81	4.967	5.78	7.967	4.34	10.97	1.45
1.983	1.81	4.983	5.78	7.983	4.34	10.98	1.45
2.000	1.81	5.000	5.79	8.000	4.33	11.00	1.45
2.017	2.17	5.017	8.67	8.017	2.53	11.02	1.45
2.033	2.17	5.033	8.67	8.033	2.53	11.03	1.45
2.050	2.17	5.050	8.67	8.050	2.53	11.05	1.45
2.067	2.17	5.067	8.67	8.067	2.53	11.07	1.45
2.083	2.17	5.083	8.67	8.083	2.53	11.08	1.45
2.100	2.17	5.100	8.67	8.100	2.53	11.10	1.45
2.117	2.17	5.117	8.67	8.117	2.53	11.12	1.45
2.133	2.17	5.133	8.67	8.133	2.53	11.13	1.45
2.150	2.17	5.150	8.67	8.150	2.53	11.15	1.45
2.167	2.17	5.167	8.67	8.167	2.53	11.17	1.45
2.183	2.17	5.183	8.67	8.183	2.53	11.18	1.45
2.200	2.17	5.200	8.67	8.200	2.53	11.20	1.45
2.217	2.17	5.217	8.67	8.217	2.53	11.22	1.45
2.233	2.17	5.233	8.67	8.233	2.53	11.23	1.45
2.250	2.17	5.250	8.67	8.250	2.53	11.25	1.45
2.267	2.17	5.267	8.67	8.267	2.53	11.27	1.45
2.283	2.17	5.283	8.67	8.283	2.53	11.28	1.45
2.300	2.17	5.300	8.67	8.300	2.53	11.30	1.45
2.317	2.17	5.317	8.67	8.317	2.53	11.32	1.45
2.333	2.17	5.333	8.67	8.333	2.53	11.33	1.45
2.350	2.17	5.350	8.67	8.350	2.53	11.35	1.45
2.367	2.17	5.367	8.67	8.367	2.53	11.37	1.45
2.383	2.17	5.383	8.67	8.383	2.53	11.38	1.45
2.400	2.17	5.400	8.67	8.400	2.53	11.40	1.45
2.417	2.17	5.417	8.67	8.417	2.53	11.42	1.45
2.433	2.17	5.433	8.67	8.433	2.53	11.43	1.45
2.450	2.17	5.450	8.67	8.450	2.53	11.45	1.45
2.467	2.17	5.467	8.67	8.467	2.53	11.47	1.45
2.483	2.17	5.483	8.67	8.483	2.53	11.48	1.45

2.500	2.17	5.500	8.70	8.500	2.53	11.50	1.45
2.517	2.17	5.517	34.70	8.517	2.53	11.52	1.45
2.533	2.17	5.533	34.70	8.533	2.53	11.53	1.45
2.550	2.17	5.550	34.70	8.550	2.53	11.55	1.45
2.567	2.17	5.567	34.70	8.567	2.53	11.57	1.45
2.583	2.17	5.583	34.70	8.583	2.53	11.58	1.45
2.600	2.17	5.600	34.70	8.600	2.53	11.60	1.45
2.617	2.17	5.617	34.70	8.617	2.53	11.62	1.45
2.633	2.17	5.633	34.70	8.633	2.53	11.63	1.45
2.650	2.17	5.650	34.70	8.650	2.53	11.65	1.45
2.667	2.17	5.667	34.70	8.667	2.53	11.67	1.45
2.683	2.17	5.683	34.70	8.683	2.53	11.68	1.45
2.700	2.17	5.700	34.70	8.700	2.53	11.70	1.45
2.717	2.17	5.717	34.70	8.717	2.53	11.72	1.45
2.733	2.17	5.733	34.70	8.733	2.53	11.73	1.45
2.750	2.17	5.750	34.77	8.750	2.53	11.75	1.45
2.767	2.17	5.767	95.42	8.767	2.53	11.77	1.45
2.783	2.17	5.783	95.42	8.783	2.53	11.78	1.45
2.800	2.17	5.800	95.42	8.800	2.53	11.80	1.45
2.817	2.17	5.817	95.42	8.817	2.53	11.82	1.45
2.833	2.17	5.833	95.42	8.833	2.53	11.83	1.45
2.850	2.17	5.850	95.42	8.850	2.53	11.85	1.45
2.867	2.17	5.867	95.42	8.867	2.53	11.87	1.45
2.883	2.17	5.883	95.42	8.883	2.53	11.88	1.45
2.900	2.17	5.900	95.42	8.900	2.53	11.90	1.45
2.917	2.17	5.917	95.42	8.917	2.53	11.92	1.45
2.933	2.17	5.933	95.42	8.933	2.53	11.93	1.45
2.950	2.17	5.950	95.42	8.950	2.53	11.95	1.45
2.967	2.17	5.967	95.42	8.967	2.53	11.97	1.45
2.983	2.17	5.983	95.42	8.983	2.53	11.98	1.45
3.000	2.17	6.000	95.31	9.000	2.53	12.00	1.45

Max.Eff.Inten.(mm/hr)=	95.42	60.81		
over (min)	5.00	12.00		
Storage Coeff. (min)=	3.25 (ii)	11.86 (ii)		
Unit Hyd. Tpeak (min)=	5.00	12.00		
Unit Hyd. peak (cms)=	0.29	0.10		
			TOTALS	
PEAK FLOW (cms)=	0.33	0.34	0.616 (iii)	
TIME TO PEAK (hrs)=	6.00	6.10	6.02	
RUNOFF VOLUME (mm)=	71.49	23.68	33.24	
TOTAL RAINFALL (mm)=	72.29	72.29	72.29	
RUNOFF COEFFICIENT =	0.99	0.33	0.46	

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0091) IN= 2---> OUT= 1 DT= 1.0 min	OVERFLOW IS ON			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0000	0.0800
	0.0000	0.0500	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0087)	6.260	0.616	6.02	33.24
OUTFLOW: ID= 1 (0091)	0.000	0.000	6.03	20.46
OVERFLOW:ID= 3 (0003)	6.260	0.611	6.03	20.46

TOTAL NUMBER OF SIMULATION OVERFLOW = 0

```
                    CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                    PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  0.00
                    TIME SHIFT OF PEAK FLOW         (min)=  1.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=  0.0800

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0081):    13.00   0.308     6.47    16.26
      + ID2= 2 (  0082):     1.00   0.117     6.03    46.76
        ================================================
        ID = 3 (  0083):    14.00   0.339     6.42    18.44

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0083):    14.00   0.339     6.42    18.44
      + ID2= 2 (  0085):     4.76   0.053     7.02    10.16
        ================================================
        ID = 1 (  0083):    18.76   0.345     6.68    16.34

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0083):    18.76   0.345     6.68    16.34
      + ID2= 2 (  0086):    15.97   1.461     6.02    32.69
        ================================================
        ID = 3 (  0083):    34.73   1.716     6.03    23.86

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0083):    34.73   1.716     6.03    23.86
      + ID2= 2 (  0091):     6.26   0.611     6.03    20.46
        ================================================
        ID = 1 (  0083):    40.99   2.327     6.03    23.34

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0088)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0000     0.0000   |   0.8700      0.5950
                          0.0850     0.3450   |   0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0083)     40.990      2.327      6.03      23.34
   OUTFLOW: ID= 1 (  0088)     40.990      0.481      7.08      21.98
```

```
                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 20.68
                  TIME SHIFT OF PEAK FLOW         (min)= 63.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.4907

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*******************************
** SIMULATION:Run 04          **
*******************************

--------------------
|    READ STORM    |    Filename: C:\Users\hwalsh\AppD
|                  |              ata\Local\Temp\
|                  |              6c940005-6681-4167-b4db-001c516d3d70\27609849
| Ptotal= 54.32 mm |    Comments: 5 yr - 12hr SCS II
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.25	0.00	3.25	2.19	6.25	9.84	9.25	1.91
0.50	1.37	3.50	2.19	6.50	9.84	9.50	1.91
0.75	1.37	3.75	2.19	6.75	4.37	9.75	1.91
1.00	1.37	4.00	2.19	7.00	4.37	10.00	1.91
1.25	1.37	4.25	3.28	7.25	3.28	10.25	1.09
1.50	1.37	4.50	3.28	7.50	3.28	10.50	1.09
1.75	1.37	4.75	4.37	7.75	3.28	10.75	1.09
2.00	1.37	5.00	4.37	8.00	3.28	11.00	1.09
2.25	1.64	5.25	6.56	8.25	1.91	11.25	1.09
2.50	1.64	5.50	6.56	8.50	1.91	11.50	1.09
2.75	1.64	5.75	26.24	8.75	1.91	11.75	1.09
3.00	1.64	6.00	72.15	9.00	1.91	12.00	1.09

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--------------------
| CALIB            |
| NASHYD   (  0081)|   Area    (ha)=  13.00   Curve Number   (CN)= 52.5
|ID= 1 DT= 1.0 min |   Ia      (mm)=   2.50   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.52

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91

0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09

1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09

2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Unit Hyd Qpeak (cms)= 0.955

PEAK FLOW (cms)= 0.179 (i)
TIME TO PEAK (hrs)= 6.483
RUNOFF VOLUME (mm)= 9.534
TOTAL RAINFALL (mm)= 54.318
RUNOFF COEFFICIENT = 0.176

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0090) ID= 1 DT= 1.0 min	Area (ha)= 2.27	Curve Number (CN)= 62.0
	Ia (mm)= 8.70	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.28	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91

0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09

1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09

2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Unit Hyd Qpeak (cms)= 0.310

PEAK FLOW (cms)= 0.052 (i)
TIME TO PEAK (hrs)= 6.200
RUNOFF VOLUME (mm)= 10.341
TOTAL RAINFALL (mm)= 54.318
RUNOFF COEFFICIENT = 0.190

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0084)
ID= 1 DT= 1.0 min

Area (ha)= 2.49
Total Imp(%)= 69.00 Dir. Conn.(%)= 23.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.72	0.77
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	128.84	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91

0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09

1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09

2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Max.Eff.Inten.(mm/hr)=	72.15	69.76		
over (min)	5.00	12.00		
Storage Coeff. (min)=	3.39 (ii)	11.54 (ii)		
Unit Hyd. Tpeak (min)=	5.00	12.00		
Unit Hyd. peak (cms)=	0.29	0.10		
			TOTALS	
PEAK FLOW (cms)=	0.11	0.10	0.194 (iii)	
TIME TO PEAK (hrs)=	6.00	6.10	6.02	
RUNOFF VOLUME (mm)=	53.32	17.23	25.53	
TOTAL RAINFALL (mm)=	54.32	54.32	54.32	
RUNOFF COEFFICIENT =	0.98	0.32	0.47	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0089)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0084):		2.49	0.194	6.02	25.53
+ ID2= 2 (0090):		2.27	0.052	6.20	10.34
ID = 3 (0089):		4.76	0.229	6.03	18.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

|SOAKAWAY(0094)| |IN= 2--> OUT= 3 | |DT= 1.0 MIN |

UNDERDRAIN: OFF

STORAGE LAYER:

Length	(m)= 293.00	Height	(m)=	1.00
Porosity	= 1.00	Initial Water Level	(m)=	0.00
Width	(m)= 3.00	Min. Drawdown	(hr)=	24.00
Max. Drawdown	(hr)= Inf	Available Storage	(cu.m.)=	879.00

NATIVE SOIL LAYER:
Infiltration (m/hr) = 0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW:ID= 2	4.76	0.229	6.03	18.29
OVERFLOW:ID= 3	0.00	0.000	0.00	0.00

Volume Reduction Rate[(RVin-RVout)/RVin](%):

```
                    If RVout= (Overflow             )=      100.00
               Time to reach Max storage             (Hr)=       13.33
               Volume of water for drawdown in LID (cu.m.)=      870.48
               Volume of maximum water storage     (cu.m.)=      870.48
               ***** After simulation, water volume is not zero.

  -------------------------
  | Junction Command(0095) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 3(  0094)    0.00     0.00    0.00     0.00
  OUTFLOW: ID= 2(  0095)    0.00     0.00    0.00     0.00

  ------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0085)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.2560      0.0427
                          0.0390     0.0003   |   0.3340      0.0542
                          0.0650     0.0049   |   0.3650      0.0594
                          0.0830     0.0142   |   0.3770      0.0614
                          0.0880     0.0193   |   0.3880      0.0634
                          0.1330     0.0285   |   0.3990      0.0652
                          0.1720     0.0336   |   0.4140      0.0679
                          0.2210     0.0393   |   0.0000      0.0000

                               AREA     QPEAK     TPEAK       R.V.
                               (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0095)     0.000      0.000      0.00       0.00
   OUTFLOW: ID= 1 (  0085)     0.000      0.000      0.00        NaN

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=   NaN
                  TIME SHIFT OF PEAK FLOW         (min)=  0.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0000
                  MAXIMUM  STORAGE   USED       (cu.m.)=  0.000000

     **** WARNING : HYDROGRAPH WAS CUT. CHECK VOLUME.
     **** WARNING : HYDROGRAPH PEAK WAS NOT REDUCED.
                    CHECK OUTFLOW/STORAGE TABLE  OR REDUCE DT.
------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0082)|   Area    (ha)=   1.00
|ID= 1 DT= 1.0 min |   Total Imp(%)=  55.00   Dir. Conn.(%)=  55.00
--------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.55         0.45
     Dep. Storage     (mm)=       0.80         1.50
     Average Slope     (%)=       0.01         0.01
     Length            (m)=      81.65        40.00
     Mannings n             =     0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.017    0.00 | 3.017    2.19 | 6.017    9.84 |  9.02    1.91
               0.033    0.00 | 3.033    2.19 | 6.033    9.84 |  9.03    1.91
               0.050    0.00 | 3.050    2.19 | 6.050    9.84 |  9.05    1.91
               0.067    0.00 | 3.067    2.19 | 6.067    9.84 |  9.07    1.91
               0.083    0.00 | 3.083    2.19 | 6.083    9.84 |  9.08    1.91
               0.100    0.00 | 3.100    2.19 | 6.100    9.84 |  9.10    1.91
               0.117    0.00 | 3.117    2.19 | 6.117    9.84 |  9.12    1.91
```

0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09

1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09

2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Max.Eff.Inten.(mm/hr)=	72.15	5.72		
over (min)	10.00	119.00		
Storage Coeff. (min)=	10.26 (ii)	118.88 (ii)		
Unit Hyd. Tpeak (min)=	10.00	119.00		
Unit Hyd. peak (cms)=	0.11	0.01		
			TOTALS	
PEAK FLOW (cms)=	0.08	0.00	0.084 (iii)	
TIME TO PEAK (hrs)=	6.05	7.93	6.05	
RUNOFF VOLUME (mm)=	53.52	9.86	33.81	
TOTAL RAINFALL (mm)=	54.32	54.32	54.32	
RUNOFF COEFFICIENT =	0.99	0.18	0.62	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0086)	Area (ha)= 15.97
ID= 1 DT= 1.0 min	Total Imp(%)= 45.00 Dir. Conn.(%)= 22.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.19	8.78
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	326.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91
0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09

1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09
2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09

2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

Max.Eff.Inten.(mm/hr)=	72.15	29.10		
over (min)	5.00	17.00		
Storage Coeff. (min)=	4.81 (ii)	16.37 (ii)		
Unit Hyd. Tpeak (min)=	5.00	17.00		
Unit Hyd. peak (cms)=	0.23	0.07		
			TOTALS	
PEAK FLOW (cms)=	0.67	0.38	0.931 (iii)	
TIME TO PEAK (hrs)=	6.00	6.18	6.02	
RUNOFF VOLUME (mm)=	53.52	13.17	22.05	
TOTAL RAINFALL (mm)=	54.32	54.32	54.32	
RUNOFF COEFFICIENT =	0.99	0.24	0.41	

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.5 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0087)	Area (ha)= 6.26
ID= 1 DT= 1.0 min	Total Imp(%)= 50.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.13	3.13
Dep. Storage	(mm)=	0.80	1.50
Average Slope	(%)=	2.00	2.00
Length	(m)=	204.29	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.00	3.017	2.19	6.017	9.84	9.02	1.91
0.033	0.00	3.033	2.19	6.033	9.84	9.03	1.91
0.050	0.00	3.050	2.19	6.050	9.84	9.05	1.91
0.067	0.00	3.067	2.19	6.067	9.84	9.07	1.91
0.083	0.00	3.083	2.19	6.083	9.84	9.08	1.91
0.100	0.00	3.100	2.19	6.100	9.84	9.10	1.91
0.117	0.00	3.117	2.19	6.117	9.84	9.12	1.91
0.133	0.00	3.133	2.19	6.133	9.84	9.13	1.91
0.150	0.00	3.150	2.19	6.150	9.84	9.15	1.91
0.167	0.00	3.167	2.19	6.167	9.84	9.17	1.91
0.183	0.00	3.183	2.19	6.183	9.84	9.18	1.91
0.200	0.00	3.200	2.19	6.200	9.84	9.20	1.91
0.217	0.00	3.217	2.19	6.217	9.84	9.22	1.91
0.233	0.00	3.233	2.19	6.233	9.84	9.23	1.91
0.250	0.00	3.250	2.19	6.250	9.84	9.25	1.91
0.267	1.37	3.267	2.19	6.267	9.84	9.27	1.91
0.283	1.37	3.283	2.19	6.283	9.84	9.28	1.91
0.300	1.37	3.300	2.19	6.300	9.84	9.30	1.91
0.317	1.37	3.317	2.19	6.317	9.84	9.32	1.91
0.333	1.37	3.333	2.19	6.333	9.84	9.33	1.91
0.350	1.37	3.350	2.19	6.350	9.84	9.35	1.91
0.367	1.37	3.367	2.19	6.367	9.84	9.37	1.91
0.383	1.37	3.383	2.19	6.383	9.84	9.38	1.91
0.400	1.37	3.400	2.19	6.400	9.84	9.40	1.91
0.417	1.37	3.417	2.19	6.417	9.84	9.42	1.91
0.433	1.37	3.433	2.19	6.433	9.84	9.43	1.91
0.450	1.37	3.450	2.19	6.450	9.84	9.45	1.91
0.467	1.37	3.467	2.19	6.467	9.84	9.47	1.91
0.483	1.37	3.483	2.19	6.483	9.84	9.48	1.91
0.500	1.37	3.500	2.19	6.500	9.83	9.50	1.91
0.517	1.37	3.517	2.19	6.517	4.37	9.52	1.91
0.533	1.37	3.533	2.19	6.533	4.37	9.53	1.91
0.550	1.37	3.550	2.19	6.550	4.37	9.55	1.91
0.567	1.37	3.567	2.19	6.567	4.37	9.57	1.91
0.583	1.37	3.583	2.19	6.583	4.37	9.58	1.91
0.600	1.37	3.600	2.19	6.600	4.37	9.60	1.91
0.617	1.37	3.617	2.19	6.617	4.37	9.62	1.91
0.633	1.37	3.633	2.19	6.633	4.37	9.63	1.91
0.650	1.37	3.650	2.19	6.650	4.37	9.65	1.91
0.667	1.37	3.667	2.19	6.667	4.37	9.67	1.91
0.683	1.37	3.683	2.19	6.683	4.37	9.68	1.91
0.700	1.37	3.700	2.19	6.700	4.37	9.70	1.91
0.717	1.37	3.717	2.19	6.717	4.37	9.72	1.91
0.733	1.37	3.733	2.19	6.733	4.37	9.73	1.91
0.750	1.37	3.750	2.19	6.750	4.37	9.75	1.91
0.767	1.37	3.767	2.19	6.767	4.37	9.77	1.91
0.783	1.37	3.783	2.19	6.783	4.37	9.78	1.91
0.800	1.37	3.800	2.19	6.800	4.37	9.80	1.91
0.817	1.37	3.817	2.19	6.817	4.37	9.82	1.91
0.833	1.37	3.833	2.19	6.833	4.37	9.83	1.91
0.850	1.37	3.850	2.19	6.850	4.37	9.85	1.91
0.867	1.37	3.867	2.19	6.867	4.37	9.87	1.91

0.883	1.37	3.883	2.19	6.883	4.37	9.88	1.91
0.900	1.37	3.900	2.19	6.900	4.37	9.90	1.91
0.917	1.37	3.917	2.19	6.917	4.37	9.92	1.91
0.933	1.37	3.933	2.19	6.933	4.37	9.93	1.91
0.950	1.37	3.950	2.19	6.950	4.37	9.95	1.91
0.967	1.37	3.967	2.19	6.967	4.37	9.97	1.91
0.983	1.37	3.983	2.19	6.983	4.37	9.98	1.91
1.000	1.37	4.000	2.19	7.000	4.37	10.00	1.91
1.017	1.37	4.017	3.28	7.017	3.28	10.02	1.09
1.033	1.37	4.033	3.28	7.033	3.28	10.03	1.09
1.050	1.37	4.050	3.28	7.050	3.28	10.05	1.09
1.067	1.37	4.067	3.28	7.067	3.28	10.07	1.09
1.083	1.37	4.083	3.28	7.083	3.28	10.08	1.09
1.100	1.37	4.100	3.28	7.100	3.28	10.10	1.09
1.117	1.37	4.117	3.28	7.117	3.28	10.12	1.09
1.133	1.37	4.133	3.28	7.133	3.28	10.13	1.09
1.150	1.37	4.150	3.28	7.150	3.28	10.15	1.09
1.167	1.37	4.167	3.28	7.167	3.28	10.17	1.09
1.183	1.37	4.183	3.28	7.183	3.28	10.18	1.09
1.200	1.37	4.200	3.28	7.200	3.28	10.20	1.09
1.217	1.37	4.217	3.28	7.217	3.28	10.22	1.09
1.233	1.37	4.233	3.28	7.233	3.28	10.23	1.09
1.250	1.37	4.250	3.28	7.250	3.28	10.25	1.09
1.267	1.37	4.267	3.28	7.267	3.28	10.27	1.09
1.283	1.37	4.283	3.28	7.283	3.28	10.28	1.09
1.300	1.37	4.300	3.28	7.300	3.28	10.30	1.09
1.317	1.37	4.317	3.28	7.317	3.28	10.32	1.09
1.333	1.37	4.333	3.28	7.333	3.28	10.33	1.09
1.350	1.37	4.350	3.28	7.350	3.28	10.35	1.09
1.367	1.37	4.367	3.28	7.367	3.28	10.37	1.09
1.383	1.37	4.383	3.28	7.383	3.28	10.38	1.09
1.400	1.37	4.400	3.28	7.400	3.28	10.40	1.09
1.417	1.37	4.417	3.28	7.417	3.28	10.42	1.09
1.433	1.37	4.433	3.28	7.433	3.28	10.43	1.09
1.450	1.37	4.450	3.28	7.450	3.28	10.45	1.09
1.467	1.37	4.467	3.28	7.467	3.28	10.47	1.09
1.483	1.37	4.483	3.28	7.483	3.28	10.48	1.09
1.500	1.37	4.500	3.28	7.500	3.28	10.50	1.09
1.517	1.37	4.517	4.37	7.517	3.28	10.52	1.09
1.533	1.37	4.533	4.37	7.533	3.28	10.53	1.09
1.550	1.37	4.550	4.37	7.550	3.28	10.55	1.09
1.567	1.37	4.567	4.37	7.567	3.28	10.57	1.09
1.583	1.37	4.583	4.37	7.583	3.28	10.58	1.09
1.600	1.37	4.600	4.37	7.600	3.28	10.60	1.09
1.617	1.37	4.617	4.37	7.617	3.28	10.62	1.09
1.633	1.37	4.633	4.37	7.633	3.28	10.63	1.09
1.650	1.37	4.650	4.37	7.650	3.28	10.65	1.09
1.667	1.37	4.667	4.37	7.667	3.28	10.67	1.09
1.683	1.37	4.683	4.37	7.683	3.28	10.68	1.09
1.700	1.37	4.700	4.37	7.700	3.28	10.70	1.09
1.717	1.37	4.717	4.37	7.717	3.28	10.72	1.09
1.733	1.37	4.733	4.37	7.733	3.28	10.73	1.09
1.750	1.37	4.750	4.37	7.750	3.28	10.75	1.09
1.767	1.37	4.767	4.37	7.767	3.28	10.77	1.09
1.783	1.37	4.783	4.37	7.783	3.28	10.78	1.09
1.800	1.37	4.800	4.37	7.800	3.28	10.80	1.09
1.817	1.37	4.817	4.37	7.817	3.28	10.82	1.09
1.833	1.37	4.833	4.37	7.833	3.28	10.83	1.09
1.850	1.37	4.850	4.37	7.850	3.28	10.85	1.09
1.867	1.37	4.867	4.37	7.867	3.28	10.87	1.09
1.883	1.37	4.883	4.37	7.883	3.28	10.88	1.09
1.900	1.37	4.900	4.37	7.900	3.28	10.90	1.09
1.917	1.37	4.917	4.37	7.917	3.28	10.92	1.09
1.933	1.37	4.933	4.37	7.933	3.28	10.93	1.09
1.950	1.37	4.950	4.37	7.950	3.28	10.95	1.09
1.967	1.37	4.967	4.37	7.967	3.28	10.97	1.09
1.983	1.37	4.983	4.37	7.983	3.28	10.98	1.09
2.000	1.37	5.000	4.37	8.000	3.28	11.00	1.09
2.017	1.64	5.017	6.56	8.017	1.91	11.02	1.09

2.033	1.64	5.033	6.56	8.033	1.91	11.03	1.09
2.050	1.64	5.050	6.56	8.050	1.91	11.05	1.09
2.067	1.64	5.067	6.56	8.067	1.91	11.07	1.09
2.083	1.64	5.083	6.56	8.083	1.91	11.08	1.09
2.100	1.64	5.100	6.56	8.100	1.91	11.10	1.09
2.117	1.64	5.117	6.56	8.117	1.91	11.12	1.09
2.133	1.64	5.133	6.56	8.133	1.91	11.13	1.09
2.150	1.64	5.150	6.56	8.150	1.91	11.15	1.09
2.167	1.64	5.167	6.56	8.167	1.91	11.17	1.09
2.183	1.64	5.183	6.56	8.183	1.91	11.18	1.09
2.200	1.64	5.200	6.56	8.200	1.91	11.20	1.09
2.217	1.64	5.217	6.56	8.217	1.91	11.22	1.09
2.233	1.64	5.233	6.56	8.233	1.91	11.23	1.09
2.250	1.64	5.250	6.56	8.250	1.91	11.25	1.09
2.267	1.64	5.267	6.56	8.267	1.91	11.27	1.09
2.283	1.64	5.283	6.56	8.283	1.91	11.28	1.09
2.300	1.64	5.300	6.56	8.300	1.91	11.30	1.09
2.317	1.64	5.317	6.56	8.317	1.91	11.32	1.09
2.333	1.64	5.333	6.56	8.333	1.91	11.33	1.09
2.350	1.64	5.350	6.56	8.350	1.91	11.35	1.09
2.367	1.64	5.367	6.56	8.367	1.91	11.37	1.09
2.383	1.64	5.383	6.56	8.383	1.91	11.38	1.09
2.400	1.64	5.400	6.56	8.400	1.91	11.40	1.09
2.417	1.64	5.417	6.56	8.417	1.91	11.42	1.09
2.433	1.64	5.433	6.56	8.433	1.91	11.43	1.09
2.450	1.64	5.450	6.56	8.450	1.91	11.45	1.09
2.467	1.64	5.467	6.56	8.467	1.91	11.47	1.09
2.483	1.64	5.483	6.56	8.483	1.91	11.48	1.09
2.500	1.64	5.500	6.58	8.500	1.91	11.50	1.09
2.517	1.64	5.517	26.24	8.517	1.91	11.52	1.09
2.533	1.64	5.533	26.24	8.533	1.91	11.53	1.09
2.550	1.64	5.550	26.24	8.550	1.91	11.55	1.09
2.567	1.64	5.567	26.24	8.567	1.91	11.57	1.09
2.583	1.64	5.583	26.24	8.583	1.91	11.58	1.09
2.600	1.64	5.600	26.24	8.600	1.91	11.60	1.09
2.617	1.64	5.617	26.24	8.617	1.91	11.62	1.09
2.633	1.64	5.633	26.24	8.633	1.91	11.63	1.09
2.650	1.64	5.650	26.24	8.650	1.91	11.65	1.09
2.667	1.64	5.667	26.24	8.667	1.91	11.67	1.09
2.683	1.64	5.683	26.24	8.683	1.91	11.68	1.09
2.700	1.64	5.700	26.24	8.700	1.91	11.70	1.09
2.717	1.64	5.717	26.24	8.717	1.91	11.72	1.09
2.733	1.64	5.733	26.24	8.733	1.91	11.73	1.09
2.750	1.64	5.750	26.29	8.750	1.91	11.75	1.09
2.767	1.64	5.767	72.15	8.767	1.91	11.77	1.09
2.783	1.64	5.783	72.15	8.783	1.91	11.78	1.09
2.800	1.64	5.800	72.15	8.800	1.91	11.80	1.09
2.817	1.64	5.817	72.15	8.817	1.91	11.82	1.09
2.833	1.64	5.833	72.15	8.833	1.91	11.83	1.09
2.850	1.64	5.850	72.15	8.850	1.91	11.85	1.09
2.867	1.64	5.867	72.15	8.867	1.91	11.87	1.09
2.883	1.64	5.883	72.15	8.883	1.91	11.88	1.09
2.900	1.64	5.900	72.15	8.900	1.91	11.90	1.09
2.917	1.64	5.917	72.15	8.917	1.91	11.92	1.09
2.933	1.64	5.933	72.15	8.933	1.91	11.93	1.09
2.950	1.64	5.950	72.15	8.950	1.91	11.95	1.09
2.967	1.64	5.967	72.15	8.967	1.91	11.97	1.09
2.983	1.64	5.983	72.15	8.983	1.91	11.98	1.09
3.000	1.64	6.000	72.06	9.000	1.91	12.00	1.09

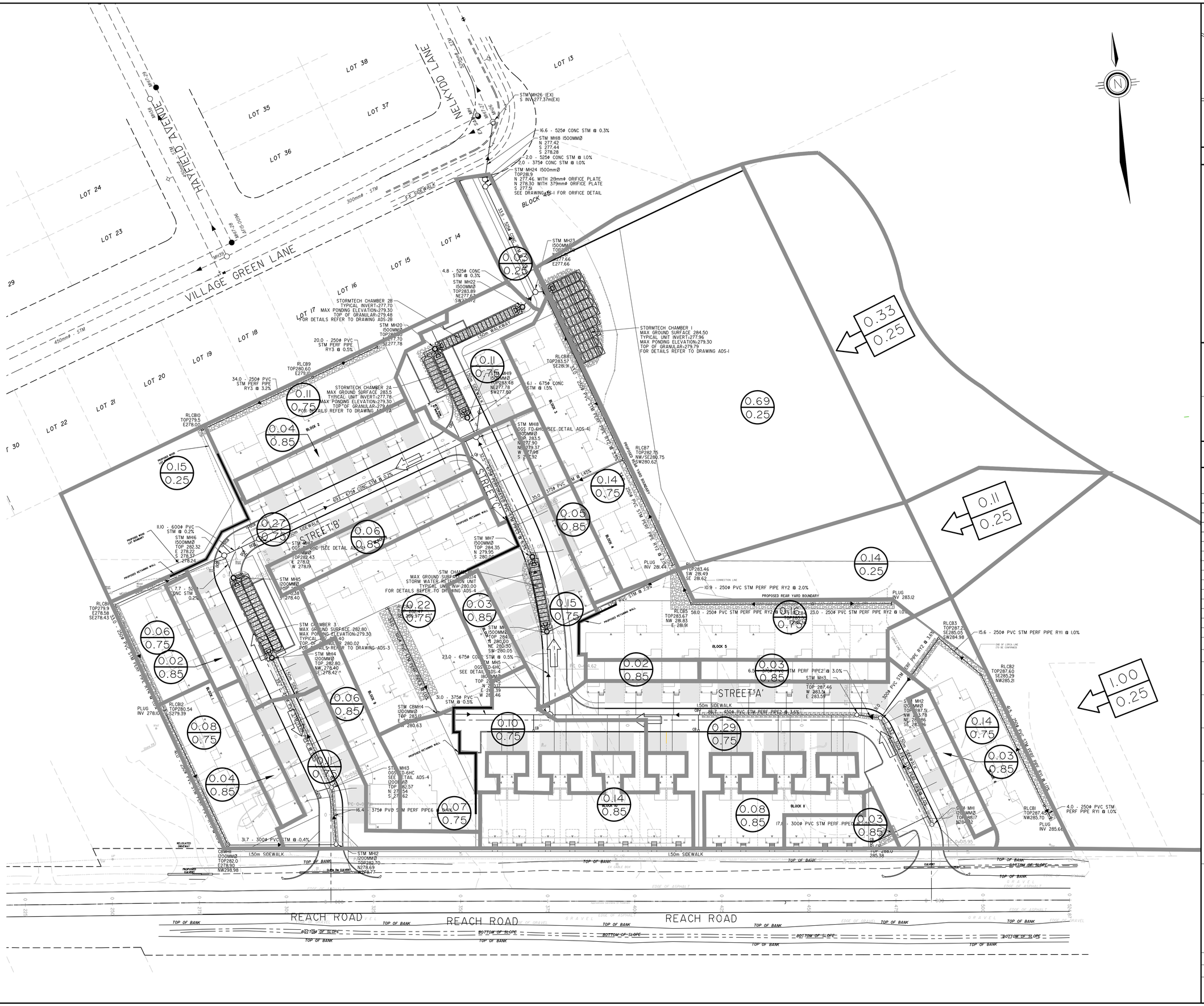
Max.Eff.Inten.(mm/hr)=	72.15	36.66	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.63 (ii)	14.17 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.28	0.08	
			TOTALS
PEAK FLOW (cms)=	0.25	0.18	0.383 (iii)
TIME TO PEAK (hrs)=	6.00	6.15	6.02
RUNOFF VOLUME (mm)=	53.52	14.46	22.27

```
     TOTAL RAINFALL   (mm)=      54.32        54.32          54.32
     RUNOFF COEFFICIENT   =       0.99         0.27           0.41

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.5    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0091)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.0000      0.0800
                          0.0000     0.0500   |   0.0000      0.0000

                                 AREA     QPEAK     TPEAK       R.V.
                                 (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0087)      6.260      0.383      6.02      22.27
   OUTFLOW: ID= 1 (  0091)      0.000      0.000      6.33       9.57
   OVERFLOW:ID= 3 (  0003)      6.260      0.203      6.33       9.57

                  TOTAL NUMBER OF SIMULATION OVERFLOW  =     0
                  CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                  PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  0.00
                  TIME SHIFT OF PEAK FLOW         (min)= 19.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.0800

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0081):    13.00   0.179     6.48     9.53
      + ID2= 2 (  0082):     1.00   0.084     6.05    33.81
        ================================================
        ID = 3 (  0083):    14.00   0.205     6.37    11.27

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0085 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0001 = HYDROGRAPH 0003
        ID1= 3 (  0083):    14.00   0.205     6.37    11.27
      + ID2= 2 (  0085):     0.00   0.000     0.00      NaN
        ================================================
        ID = 1 (  0083):    14.00   0.205     6.37    11.27

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0083):    14.00   0.205     6.37    11.27
      + ID2= 2 (  0086):    15.97   0.931     6.02    22.05
```

```
        ==================================================
        ID = 3 (  0083):    29.97   1.089     6.03    17.01

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0083)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
        ID1= 3 (  0083):    29.97   1.089     6.03    17.01
      + ID2= 2 (  0091):     6.26   0.203     6.33     9.57
        ==================================================
        ID = 1 (  0083):    36.23   1.089     6.03    15.73

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0088)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.3670      0.4600
                          0.0000     0.0000   |   0.8700      0.5950
                          0.0850     0.3450   |   0.0000      0.0000

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0083)     36.230      1.089      6.03      15.73
   OUTFLOW: ID= 1 (  0088)     36.230      0.141      8.13      14.30

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 12.98
                  TIME SHIFT OF PEAK FLOW         (min)=126.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=  0.3680

--------------------------------------------------------------------------------
```

APPENDIX C

Storm Sewer Design Sheet



KEYMAP N.T.S.

LEGEND

0.20 / 0.75 - AREA IN HECTARES
- RUNOFF COEFFICIENT
- STORM DRAINAGE BOUNDARY
- DIRECTION OF SEWER FLOW PROPOSED

EXTERNAL DRAINAGE AREAS
0.33 / 0.25 - AREA IN HECTARES
- RUNOFF COEFFICIENT

REVIEWED BY
TOWNSHIP OF UXBRIDGE ____________
DATE ____________
TOWNSHIP ENGINEER FOR THE TOWNSHIP OF UXBRIDGE

APPROVED BY
REGION OF DURHAM ____________
DATE ____________

BENCHMARK:
ELEVATIONS ARE GEODETIC AND REFERRED TO THE MTO MONUMENT NO. 778488, ELEVATION = 267.903 M.

NOTE: ALL DIMENSIONS AND ELEVATIONS IN METRES UNLESS NOTED OTHERWISE. ALL PIPE SIZES IN MILLIMETRES.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
VENITIAN GROUP

MUNICIPALITY
TOWNSHIP OF UXBRIDGE
REGION OF DURHAM

PROJECT TITLE
REACH STREET LANDS

SHEET TITLE
STORM DRAINAGE PLAN

SKA SABOURIN KIMBLE & ASSOCIATES LTD.
CONSULTING ENGINEERS

A.B. KIMBLE
26/03/2021

DESIGNED KLD
DRAWN RAV
CHECKED ABK
SCALE SCALE 1:500
DATE JAN 2021
PROJECT NUMBER 17:386
DWG. NUMBER SD-2

T-Number

CAD FILE: P:\17\386\Drawing Files\Phase 1\Submission Drawings\386 - SERVICING.dwg

STORM SEWER DESIGN SHEET
5 YEAR, 25 YEAR, AND 100 YEAR STORMS
TOWNSHIP OF UXBRIDGE

STREET	Upstream MH	Downstream MH	A at R=0.25 (ha) *"Parks"*	A at R=0.45 (ha) *"Single-Fam"*	A at R=0.75 (ha) *"Townhouses"*	A at R=0.85 (ha) *"Paved Areas"*	A x R this section (ha)	Acc. AR (ha)	t (min)	I (5yr) (mm/hr)	Q (5yr) (l/s)	I (25yr) (mm/hr)	Q (25yr) (l/s)	I (100yr) (mm/hr)	Q (100yr) (l/s)	Captured Overland Flow (l/s)	Acc. Captured Overland	Q (Design) (l/s)	Pipe	Pipe (mm)	Grade (%)	Capacity (l/s)	Velocity (m/s)	Length (m)	Time (min)	Total Time (min)	Downstream Invert	Upstream Invert	% Capacity
Street A	1	2				0.06	0.051	0.051	10.00	107.01	15.16	154.64	21.91	200.63	28.42		0.00	15.16	METRIC	300	2.00	136.76	1.93	33.2	0.29	10.29		0.66	11.1%
Street A	RYCB3	2	1		0.14		0.355	0.355	10.00	107.01	105.52	154.64	152.49	200.63	197.85	92.32	92.32	197.85	METRIC	300	3.00	167.49	2.37	31.0	0.22	10.22		0.93	63.0%
Street A	2	3					0.000	0.406	10.29	105.43	118.90	152.19	171.64	197.58	222.83		92.32	211.22	METRIC	375	3.00	303.68	2.75	6.5	0.04	10.33		0.20	39.2%
Street A	3	4			0.29	0.24	0.422	0.828	10.33	105.21	241.84	151.87	349.08	197.17	453.23		92.32	334.17	IMPERIAL	450	3.60	564.34	3.44	86.7	0.42	10.75		3.12	42.9%
Street A	RYCB13	CBMH5			0.22		0.165	0.165	10.00	107.01	49.04	154.64	70.88	200.63	91.96	42.91	42.91	91.96	METRIC	300	1.00	96.70	1.37	34.0	0.41	10.41		0.34	50.7%
Street A	CBMH5	5			0.17		0.128	0.293	10.00	107.01	86.94	154.64	125.64	200.63	163.01		42.91	129.85	METRIC	375	0.50	123.98	1.12	31.0	0.46	10.46		0.16	70.1%
Street C	RLCB6	5	0.25		0.16		0.183	0.183	10.00	107.01	54.25	154.64	78.39	200.63	101.71	47.46	47.46	101.71	METRIC	375	2.90	298.58	2.70	41.1	0.25	10.25		1.19	18.2%
Street C	5	7				0.08	0.068	0.543	10.46	104.49	157.60	150.75	227.38	195.78	295.30		90.37	247.98	IMPERIAL	675	0.50	620.09	1.68	40.1	0.40	10.86		0.20	25.4%
Street C	RLBC7	7	1.02		0.14		0.360	0.360	10.00	107.01	107.01	154.64	154.64	200.63	200.63	93.63	93.63	200.63	METRIC	375	1.45	211.13	1.91	35.5	0.31	10.31		0.51	50.7%
Street C	7	18			0.15		0.113	1.016	10.86	102.42	288.90	147.56	416.25	191.79	541.01		184.00	472.90	IMPERIAL	675	6.30	2201.09	5.96	32.5	0.09	10.95		2.05	13.1%
Street B	CBMH11	12			0.08		0.060	0.060	10.00	107.01	17.83	154.64	25.77	200.63	33.44		0.00	17.83	METRIC	300	0.40	61.16	0.87	31.7	0.61	10.61		0.13	29.2%
Street B	12	13					0.000	0.060	10.61	103.69	17.28	149.53	24.92	194.25	32.38		0.00	17.28	METRIC	375	0.40	110.89	1.00	16.4	0.27	10.88		0.07	15.6%
Street B	13	16			0.11	0.12	0.185	0.245	10.88	102.29	69.47	147.37	100.09	191.55	130.09	60.62	60.62	130.09	IMPERIAL	450	0.30	162.91	0.99	39.7	0.67	11.55		0.12	42.6%
Street C	RLCB11	16			0.06		0.045	0.045	10.00	107.01	13.38	154.64	19.33	200.63	25.08			13.38	METRIC	300	0.50	68.38	0.97	34.2	0.59	10.59		0.17	19.6%
Street C	16	17			0.27		0.203	0.492	11.55	99.03	135.34	142.37	194.58	185.27	253.21	76.09	136.71	272.05	IMPERIAL	600	0.20	286.47	0.98	11.1	0.19	11.74		0.02	47.2%
Street C	17	18				0.10	0.085	0.577	11.74	98.15	157.31	141.03	226.04	183.58	294.24		136.71	294.02	IMPERIAL	600	0.20	286.47	0.98	69.1	1.17	12.91		0.14	54.9%
Street C	18	SC2			0.11		0.083	1.675	10.95	101.95	474.38	146.85	683.29	190.90	888.23		320.71	795.09	IMPERIAL	600	1.50	784.52	2.69	6.1	0.04	10.99		0.09	60.5%
Easment	SC2	24					0.000	1.675	10.99	101.76	473.49	146.56	681.93	190.54	886.53		320.71	794.20	IMPERIAL	525	0.30	245.74	1.10	38.3	0.58	11.57		0.11	192.7%
																												Underground storage facilities provide capacity control.
Easment	MH24	25					0.000	0.000	10.99	101.76	0.00	146.56	0.00	190.54	0.00		0.00	88.00	METRIC	375	1.00	175.33	1.59	38.3	0.40	11.39		0.38	50.2%
Easment	MH25	25					0.000	0.000	10.99	101.76	0.00	146.56	0.00	190.54	0.00		0.00	0.00	IMPERIAL	525	1.00	448.66	2.01	38.3	0.32	11.31		0.38	0.0%
																												Orifice controls govern release rate. See SWM Brief for further detail.
Easment	24	Ex MH26					0.000	1.675	11.57	98.94	460.37	142.24	661.84	185.11	861.28		320.71	88.00	IMPERIAL	525	0.30	245.74	1.10	16.6	0.25	11.82		0.05	35.8%
																												System outlet designed for 5yr release rate - see Stormwater Management Design Brief for further information.

PROJECT :	Reach Street
PROJECT NUMBER :	17:386
CLIENT :	Venetian Group
DATE :	March 2021

NOTES

Town IDF Curve:

$$I_{5YR} = \frac{904}{(t+5)^{0.7880}}$$

$$I_{25YR} = \frac{1234}{(t+4)^{0.787}}$$

$$I_{100YR} = \frac{1799}{(t+5)^{0.810}}$$

Regional IDF Curve:

$$I_{10YR} = \frac{3454}{(t+20)}$$

$$I_{25YR} = \frac{3454}{(t+20)} \times 1.1$$

$$I_{100YR} = \frac{3454}{(t+20)} \times 1.25$$

Designed: KLD

Checked: AK

SABOURIN KIMBLE & ASSOCIATES LTD. CONSULTING ENGINEERS

APPENDIX D
LID Design

Site Description

Total Site Area	**3.62**	**Ha**
Proposed Development Area	2.61	Ha
LSRCA Buffer + Woodlot	0.92	Ha

General Infiltration Requirements

Total Mixed Impervious Surface Area (0.75 coefficient)	19800.0	m^2
Total Roof Impervious Area (0.85 coefficient)	6300.0	m^2
Total Site Impervious Area	20205.0	m^2

Storm to Infiltrate	40	mm
Total Site Volume to Infiltrate	**808**	m^3

Proposed Infiltration

LID Unit	**Down- stream LID Unit**	**Capture Area** Ha	**Contact Area of Imperviousness** m^2	**Depth** m	**Proposed LID Infiltration Volume** m^3	**Drain Down Time** Hours
Rear Yard LID #1	Perforated Pipe #2	0.14	1050.0	0.7	41.5	24.0
Perforated Pipe #0	Perforated Pipe #1	0.03	212.5	0.7	5.8	24.0
Perforated Pipe #1	Perforated Pipe #2	0.03	255.0	0.7	13.5	24.0
Perforated Pipe #2	Storm Chamber 4	0.12	977.5	0.7	20.5	24.0
Perforated Pipe #3	Storm Chamber 4	0.22	1650.0	0.7	42.6	24.0
Storm Chamber 4	Perforated Pipe #5	0.62	4838.0	1.4	57.4	47.9
Rear Yard LID #2	Perforated Pipe #5	0.30	2250.0	0.7	91.8	24.0
Perforated Pipe #5	Storm Chamber 2 (a+b)	0.05	406.3	0.7	12.4	24.0
Rear Yard LID #3	N/A	0.11	825.0	0.7	33.2	24.0
Rear Yard LID #5	Perforated Pipe #6	0.08	636.0	0.7	16.9	24.0
Perforated Pipe #6	Storm Chamber 3	0.21	1675.0	0.7	22.4	24.0
Storm Chamber 3	Non-Perforated Pipe #7	0.02	170.0	1.4	203.8	47.9
Rear Yard LID #4	Non-Perforated Pipe #7	0.06	426.0	0.7	13.8	24.0
Non-Perforated Pipe #7	Storm Chamber 2 (a+b)	0.37	2875.0	0.7	0.0	24.0
Storm Chamber 2 (a+b)	Storm Chamber 1	0.26	1957.5	1.4	123.0	47.9
Storm Chamber 1	N/A	0.00	0.0	1.4	180.5	47.9
	TOTAL	**2.62**		**TOTAL**	**879**	

Cumulative Infiltration Volumes

LID Unit	**Down- stream LID Unit**	**Required Infiltration Volume per Reach** m^3	Cummulative Infiltration Required m^3	**Infiltration Available per Reach** m^3	Cummulative Infiltration Available m^3	**Available Volume Infiltrated per Reach** m^3
Rear Yard LID #1	Perforated Pipe #2	42.0	42.0	41.5	**41.5**	**41.5**
Perforated Pipe #0	Perforated Pipe #1	8.5	8.5	5.8	**5.8**	**5.8**
Perforated Pipe #1	Perforated Pipe #2	10.2	**18.7**	13.5	19.4	**18.7**
Perforated Pipe #2	Storm Chamber 4	39.1	99.8	20.5	**81.3**	**81.3**
Perforated Pipe #3	Storm Chamber 4	66.0	66.0	42.6	**42.6**	**42.6**
Storm Chamber 4	Perforated Pipe #5	193.5	359.3	57.4	181.3	**181.3**
Rear Yard LID #2	Perforated Pipe #5	90.0	**90.0**	91.8	91.8	**90.0**
Perforated Pipe #5	Storm Chamber 2 (a+b)	16.3	465.6	12.4	**285.5**	**285.5**
Rear Yard LID #3	N/A	33.0	33.0	33.2	**33.2**	**33.2**
Rear Yard LID #5	Perforated Pipe #6	25.4	25.4	16.9	**16.9**	**16.9**
Perforated Pipe #6	Storm Chamber 3	67.0	92.4	22.4	**39.3**	**39.3**
Storm Chamber 3	Non-Perforated Pipe #7	6.8	**99.2**	203.8	243.1	**99.2**
Non-Perforated Pipe #7	Storm Chamber 2 (a+b)	115.0	**231.3**	0.0	243.1	**231.3**
Rear Yard LID #4	Non-Perforated Pipe #7	17.0	**17.0**	13.8	13.8	**17.0**
Storm Chamber 2 (a+b)	Storm Chamber 1	78.3	775.2	123.0	**651.6**	**651.6**
Storm Chamber 1	N/A	0.0	**775.2**	180.5	832.1	**775.2**
Sum of Column=		**808**		**879**		**808**

Infiltration Summary

Total Site Volume Required to Infiltrate	808	m^3
Infiltration Volume Provided	879	m^3
Infiltration Volume Achieved	808	m^3
Remaining Volume Required	**0.0**	**m^3**

Perforated Pipe #0
Infiltration Requirements

LID capture area:	0.03	Ha
Total area of imperviousness	212.5	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	8.5	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where

P=	28.8	percolation rate of native soil (mm/h)
T=	24.0	detention time (24 hours)
d=	0.69	

$A = \frac{1000\ V}{Pnt}$

Where

A=		Bottom area of trench (m^2)
V=	8.5	runoff volume to be infiltrated (m^3)
P=	28.8	percolation rate of native soil (mm/h)
n=	0.4	porosity of storage media (0.4 for clear stone)
t=	24.0	detention time (24 hours)

P=K/f.s.
K = 72mm/hr infiltration rate
f.s.= 2.5

$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$

A= 30.7

Area Available for Infiltration

Contact Area	**21.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**14.52**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**5.81**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**2.69**	**m^3**

Perforated Pipe #1
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**2.7**	**m^3**
LID capture area:	0.03	Ha
Total area of imperviousness	255.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	10.2	m^3
Total Target Volume Required for LID Infiltration:	**12.9**	**m^3**

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where
P= 28.8 percolation rate of native soil (mm/h)
T= 24.0 detention time (24 hours)

d= 0.69

$A = \frac{1000\ V}{Pnt}$

Where
A= Bottom area of trench (m^2)
V= 10.2 runoff volume to be infiltrated (m^3)
P=K/f.s. **P=** 28.8 percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate **n=** 0.4 porosity of storage media (0.4 for clear stone)
f.s.= 2.5 **t=** 24.0 detention time (24 hours)

$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$

A= 36.9

Area Available for Infiltration

Contact Area	**49.00 m^2**
Depth of clearstone	0.69 m
Trench Volume	**33.87 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**13.55 m^3**

Total Imperviousness to be infiltrated in downstream LID	**0.00**	**m^3**

Rear Yard LID #1
Infiltration Requirements

LID capture area:	0.14	Ha
Total area of imperviousness:	1050.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	42.0	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$$A = \frac{1000\ V}{Pnt}$$

Where	**A=**		Bottom area of trench (m^2)
	V=	42.0	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 151.9

Area Available for Infiltration

Contact Area	**150.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**103.68**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**41.47**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**0.53**	**m^3**

Perforated Pipe #2
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**0.5**	**m^3**
LID capture area:	0.12	Ha
Total area of imperviousness	977.5	m^2
Volume to infiltrate:	40.0	mm
Reach Volume to be infiltrated:	39.1	m^3
Total Target Volume Required for LID Infiltration:	**39.6**	**m^3**

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where
P= 28.8 percolation rate of native soil (mm/h)
T= 24.0 detention time (24 hours)

d= 0.69

$A = \frac{1000\ V}{Pnt}$

Where
A= Bottom area of trench (m^2)
V= 39.1 runoff volume to be infiltrated (m^3)
P=K/f.s. **P=** 28.8 percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate **n=** 0.4 porosity of storage media (0.4 for clear stone)
f.s.= 2.5 **t=** 24.0 detention time (24 hours)

$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$

A= 141.4

Area Available for Infiltration

Contact Area	**74.00 m^2**
Depth of clearstone	0.69 m
Trench Volume	**51.15 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**20.46 m^3**

Total Imperviousness to be infiltrated in downstream LID	**19.17**	**m^3**

Perforated Pipe #3
Infiltration Requirements

LID capture area:	0.22	Ha
Total area of imperviousness	1650.0	m^2
Volume to infiltrate:	40.0	mm
Reach Volume to be infiltrated:	66.0	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$$A = \frac{1000\ V}{Pnt}$$

Where	**A=**		Bottom area of trench (m^2)
	V=	66.0	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 238.7

Area Available for Infiltration

Contact Area	**154.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**106.44**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**42.58**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**23.42**	**m^3**

Storm Chamber 4
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**42.59**	**m^3**
LID capture area:	0.62	Ha
Total area of imperviousness	4838.0	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	193.5	m^3
Total Target Volume Required for LID Infiltration:	**236.1**	**m^3**

Drain Down Time: $T = \frac{1000d}{P}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	d=	1.38	(m)

P=K/f.s.
K = 72mm/hr infiltration rate
f.s.= 2.5

T=	47.92	detention time (Hours)

Area Available for Infiltration

Contact Area	**104.00 m^2**
Depth of clearstone	1.38 m
Trench Volume	**143.52 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**57.41 m^3**

Total Imperviousness to be infiltrated in downstream LID	**178.70**	**m^3**

Rear Yard LID #2
Infiltration Requirements

LID capture area:	0.30	Ha
Total area of imperviousness	2250.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	90.0	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$$A = \frac{1000\ V}{Pnt}$$

Where	**A=**		Bottom area of trench (m^2)
	V=	90.0	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 325.5

Area Available for Infiltration

Contact Area	**332.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**229.48**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**91.79**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**0.00**	**m^3**

Perforated Pipe #5
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**178.7**	**m^3**
LID capture area:	0.05	Ha
Total area of imperviousness	406.3	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	16.3	m^3
Total Target Volume Required for LID Infiltration:	**195.0**	**m^3**

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where
P= 28.8 percolation rate of native soil (mm/h)
T= 24.0 detention time (24 hours)

d= 0.69

$A = \frac{1000\ V}{Pnt}$

Where
A= Bottom area of trench (m^2)
V= 195.0 runoff volume to be infiltrated (m^3)
P=K/f.s. **P=** 28.8 percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate **n=** 0.4 porosity of storage media (0.4 for clear stone)
f.s.= 2.5 **t=** 24.0 detention time (24 hours)

$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$

A= 705.1

Area Available for Infiltration

Contact Area	**45.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**31.05**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**12.42**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**182.53**	**m^3**

Rear Yard LID #3
Infiltration Requirements

LID capture area:	0.11	Ha
Total area of imperviousness	825.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	33.0	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$A = \frac{1000\ V}{Pnt}$

Where	**A=**		Bottom area of trench (m^2)
	V=	33.0	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 119.4

Area Available for Infiltration

Contact Area	**120.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**82.94**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**33.18**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**0.00**	**m^3**

Rear Yard LID #5
Infiltration Requirements

LID capture area:	0.08	Ha
Total area of imperviousness	636.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	25.4	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$A = \frac{1000\ V}{Pnt}$

Where	**A=**		Bottom area of trench (m^2)
	V=	25.4	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 92.0

Area Available for Infiltration

Contact Area	**61.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**42.16**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**16.87**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**8.57**	**m^3**

Perforated Pipe #6
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**8.6**	**m^3**
LID capture area:	0.21	Ha
Total area of imperviousness	1675.0	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	67.0	m^3
Total Target Volume Required for LID Infiltration:	**75.6**	**m^3**

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where
P= 28.8 percolation rate of native soil (mm/h)
T= 24.0 detention time (24 hours)

d= 0.69

$A = \frac{1000\ V}{Pnt}$

Where
A= Bottom area of trench (m^2)
V= 75.6 runoff volume to be infiltrated (m^3)
P=K/f.s. **P=** 28.8 percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate **n=** 0.4 porosity of storage media (0.4 for clear stone)
f.s.= 2.5 **t=** 24.0 detention time (24 hours)

$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$

A= 273.3

Area Available for Infiltration

Contact Area	**81.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**55.99**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**22.39**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**53.18**	**m^3**

Storm Chamber 3
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**53.18**	**m^3**
LID capture area:	0.02	Ha
Total area of imperviousness	170.0	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	6.8	m^3
Total Target Volume Required for LID Infiltration:	**60.0**	**m^3**

Drain Down Time: $T = \frac{1000d}{P}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	d=	1.38	(m)

P=K/f.s.
K = 72mm/hr infiltration rate **T=** 47.92 detention time (Hours)
f.s.= 2.5

Area Available for Infiltration

Contact Area	**147.70**	**m^2**
Depth of clearstone	1.38	m
Trench Volume	**203.83**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**81.53**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**0.00**	**m^3**

Rear Yard LID #4
Infiltration Requirements

LID capture area:	0.06	Ha
Total area of imperviousness	426.0	m^2
Volume to infiltrate:	40.0	mm
Target Volume to be infiltrated:	17.0	m^3

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where	**P=**	28.8	percolation rate of native soil (mm/h)
	T=	24.0	detention time (24 hours)
	d=	0.69	

$A = \frac{1000\ V}{Pnt}$

Where	**A=**		Bottom area of trench (m^2)
	V=	17.0	runoff volume to be infiltrated (m^3)
P=K/f.s.	**P=**	28.8	percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate	**n=**	0.4	porosity of storage media (0.4 for clear stone)
f.s.= 2.5	**t=**	24.0	detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 61.6

Area Available for Infiltration

Contact Area	**50.00**	**m^2**
Depth of clearstone	0.69	m
Trench Volume	**34.56**	**m^3**
Void ratio	0.4	
Total LID Infiltration Volume Available	**13.82**	**m^3**

Total Imperviousness to be infiltrated in downstream LID	**3.22**	**m^3**

Non-Perforated Pipe #7
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**3.2**	**m^3**
LID capture area:	0.37	Ha
Total area of imperviousness	2875.0	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	115.0	m^3
Total Target Volume Required for LID Infiltration:	**118.2**	**m^3**

Maximum clearstone depth: $d = \frac{PT}{1000}$

Where
P= 28.8 percolation rate of native soil (mm/h)
T= 24.0 detention time (24 hours)

d= 0.69

$A = \frac{1000\ V}{Pnt}$

Where
A= Bottom area of trench (m^2)
V= 118.2 runoff volume to be infiltrated (m^3)
P=K/f.s. **P=** 28.8 percolation rate of native soil (mm/h)
K = 72mm/hr infiltration rate **n=** 0.4 porosity of storage media (0.4 for clear stone)
f.s.= 2.5 **t=** 24.0 detention time (24 hours)

$$A = \frac{(1000)(12.5)}{(12.0)(0.4)(72.0)}$$

A= 427.6

Area Available for Infiltration

Contact Area	**0.00 m^2**
Depth of clearstone	0.69 m
Trench Volume	**0.00 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**0.00 m^3**

Total Imperviousness to be infiltrated in downstream LID	**118.22**	**m^3**

Storm Chamber 2 (a+b)
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**300.75**	**m^3**
LID capture area:	0.26	Ha
Total area of imperviousness	1957.5	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	78.3	m^3
Total Target Volume Required for LID Infiltration:	**379.1**	**m^3**

Drain Down Time: $T = \frac{1000d}{P}$

Where **P=** 28.8 percolation rate of native soil (mm/h)

d= 1.38 (m)

P=K/f.s.

K = 72mm/hr infiltration rate **T=** 47.92 detention time (Hours)

f.s.= 2.5

Area Available for Infiltration

Contact Area	**222.80 m^2**
Depth of clearstone	1.38 m
Trench Volume	**307.46 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**122.99 m^3**

Total Imperviousness to be infiltrated in downstream LID	**256.06**	**m^3**

Storm Chamber 1
Infiltration Requirements

Volume to be infiltrated from Upstream Source:	**256.06**	**m^3**
LID capture area:	0.00	Ha
Total area of imperviousness	0.0	m^2
Volume to infiltrate:	40.0	mm
Volume to be infiltrated:	0.0	m^3
Total Target Volume Required for LID Infiltration:	**256.1**	**m^3**

Drain Down Time: $T = \frac{1000d}{P}$

Where **P=** 28.8 percolation rate of native soil (mm/h)
d= 1.4 (m)

P=K/f.s.
K = 72mm/hr infiltration rate **T=** 47.92 detention time (Hours)
f.s.= 2.5

Area Available for Infiltration

Contact Area	**327.00 m^2**
Depth of clearstone	1.38 m
Trench Volume	**451.26 m^3**
Void ratio	0.4
Total LID Infiltration Volume Available	**180.50 m^3**

Total Imperviousness to be infiltrated in downstream LID	**75.56**	**m^3**

APPENDIX E

Stormwater Quantity Control Design

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Reach St. Uxbridge

Quantity Control Analysis - External Drainage Conditions

Existing Drainage Conditions to External Lands	Area (Ha)	Runoff Coefficient	AR
Drainage Area to Village Green Lane Accounted For By R.J, Burnside	0.58	0.35	**0.203**
Area of R.J. Burnsides AR Estimate Which is Applicable to The Site Area	0.38	0.35	**0.133**

Refer to Storm Drainage Plan in Appendix A, Drawing No ST - 1 by R.J. Burnside & Associates Limited

Proposed Drainage to External Lands	Area (Ha)	Runoff Coefficient	AR
Undeveloped runnoff	0.15	0.25	0.038
Developed runnoff	0.11	0.75	0.083
Total Area	0.26	Total AR=	**0.120**

Therefore, proposed AR is less than the original Estimate from R.J. Burnside & Associates.

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Reach St. Uxbridge

Quantity Control Analysis - Extended Rational Method

Storm Intensity Curve	2-year	5-year	25-year	100-year
A	645.0	904.000	1234	1799
B	5	5.0	4	5
C	0.786	0.788	0.787	0.81
Intensity (mm/hr)	76.76	107.01	154.64	200.63

Time of Concentration = 10.000 min

Proposed

	Area (ha)	Runoff Coefficient
Development Capture	2.49	0.75
Preserved Woodlot	0.83	0.25
External Area	1.44	0.25
Total Capture Area	**4.76**	**0.51**

Storm Intensity Curve	2-year	5-year	25-year	100-year
Proposed Uncontrolled Flow (m^3/s)	0.52	0.72	1.05	1.36

	5 yr (m3/s)	100 yr (m3/s)
Allowable Target Discharge	**0.221**	**0.414**

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Reach St. Uxbridge
Quantity Control Analysis - Extended Rational Method

ENTRY TIME: 10.0 min
TIME STEP 0.5 min

100 yr Post Storm - 100 yr Allowable Discharge					
TIME	INTENSITY (mm/hr)	PEAK DISCHARGE (m^3/s)	RUNOFF VOLUME (m^3)	RELEASE VOLUME (m^3)	STORAGE VOLUME (m^3)
10.0	200.6	1.358	814.7	248.4	566.3
10.5	195.4	1.322	833.0	260.8	572.2
11.0	190.4	1.289	850.5	273.2	577.2
11.5	185.7	1.257	867.3	285.7	581.6
12.0	181.3	1.227	883.3	298.1	585.3
12.5	177.1	1.198	898.8	310.5	588.3
13.0	173.1	1.171	913.7	322.9	590.7
13.5	169.3	1.146	928.0	335.3	592.6
14.0	165.7	1.121	941.8	347.8	594.0
14.5	162.2	1.098	955.1	360.2	594.9
15.0	158.9	1.076	968.0	372.6	595.4
15.5	155.8	1.054	980.4	385.0	595.4
16.0	152.8	1.034	992.5	397.4	595.1
16.5	149.9	1.014	1004.2	409.9	594.3
17.0	147.1	0.996	1015.5	422.3	593.3
17.5	144.5	0.978	1026.5	434.7	591.8
18.0	141.9	0.960	1037.2	447.1	590.1
18.5	139.5	0.944	1047.7	459.5	588.1
19.0	137.1	0.928	1057.8	472.0	585.8
19.5	134.8	0.913	1067.6	484.4	583.2
20.0	132.6	0.898	1077.2	496.8	580.4

THEREFORE THE MAXIMUM VOLUME REQUIRED = 595 m^3
TIME DURATION REQUIRED TO OBTAIN MAXIMUM STORAGE = 15.5 min

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Reach St. Uxbridge
Quantity Control Analysis - Extended Rational Method

ENTRY TIME: 10.0 min
TIME STEP 0.5 min

5 yr Post Storm - 5 yr Allowable Discharge					
TIME	INTENSITY (mm/hr)	PEAK DISCHARGE (m^3/s)	RUNOFF VOLUME (m^3)	RELEASE VOLUME (m^3)	STORAGE VOLUME (m^3)
10.0	107.0	0.724	434.5	132.6	301.9
10.5	104.3	0.706	444.6	139.2	305.4
11.0	101.7	0.688	454.2	145.9	308.4
11.5	99.3	0.672	463.5	152.5	311.0
12.0	97.0	0.656	472.4	159.1	313.3
12.5	94.8	0.641	481.0	165.8	315.2
13.0	92.7	0.627	489.3	172.4	316.9
13.5	90.7	0.614	497.2	179.0	318.2
14.0	88.8	0.601	504.9	185.6	319.3
14.5	87.0	0.589	512.4	192.3	320.1
15.0	85.3	0.577	519.5	198.9	320.6
15.5	83.7	0.566	526.5	205.5	321.0
16.0	82.1	0.556	533.3	212.2	321.1
16.5	80.6	0.545	539.8	218.8	321.1
17.0	79.1	0.536	546.2	225.4	320.8
17.5	77.7	0.526	552.4	232.1	320.4
18.0	76.4	0.517	558.4	238.7	319.8
18.5	75.1	0.508	564.3	245.3	319.0
19.0	73.9	0.500	570.0	251.9	318.1
19.5	72.7	0.492	575.6	258.6	317.0
20.0	71.5	0.484	581.0	265.2	315.8

THEREFORE THE MAXIMUM VOLUME REQUIRED = 321 m^3
TIME DURATION REQUIRED TO OBTAIN MAXIMUM STORAGE = 16 min

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Reach St. Uxbridge
Quantity Control Analysis Approach Summary

In order to control the proposed sites storm water quantity as per required, three systems will be used in conjunction:

- StormTech Chamber systems to store the majority of the quantity as per required.
- The proposed storm sewer system pipes for additional storage.
- Orifice plates on the downstream manhole to restrict the flow to the allowable release rate and backup the excess flow into the upstream storage system (previous systems mentioned).

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Reach St. Uxbridge
Quantity Control Analysis - Storage Volume Calculation

Quantity Control Requirement

MAXIMUM VOLUME REQUIRED		
100 yr Post Storm - 100 yr Allowable Discharge	595	m3
5 yr Post Storm - 5 yr Allowable Discharge	321	m3
Max storage Required=	**595**	**m3**

Proposed Quantity Control Measures

Storm Water Top Storage Elevation = 279.30 m

StormTech Chamber Storage Unit:	1	2	3	4
Total Chamber Storage	421	352	203	57
Retention Quantity	180	123	81	57
Active Quantity	241	229	122	0
Storm Chamber Quantity Control Storage	**241**	**229**	**122**	**0**

Total Chamber Storage available = 591.50 m^3

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Reach St. Uxbridge
Quantity Control Analysis

Maintenance Hole Storage														
Manhole Number	**MH24**	**MH23**	**MH22**	**MH21**	**MH20**	**MH19**	**MH18**	**MH17**	**MH15**	**MH14**	**MH12**	**MH13**	**MH12**	**CBMH11**
Manhole Diameter (mm)	1500	1800	1500	1500	1500	1500	1800	1500	1500	1500	1200	1200	1200	1200
Downstream Invert Elevation (m)	277.40	277.55	277.65	277.65	277.70	277.70	277.90	278.12	278.26	278.45	278.29	278.61	278.29	279.12
Depth of Storage (m)	1.9	1.8	1.7	1.7	1.6	1.6	1.4	1.2	1.0	0.9	1.0	0.7	1.0	0.2
Storage Volume (m^3)	**3.36**	**4.45**	**2.91**	**2.91**	**2.83**	**2.83**	**3.56**	**2.08**	**1.84**	**1.50**	**1.14**	**0.78**	**1.14**	**0.20**

Total Manhole Storage available = **31.54** **m^3**

Pipe Storage															
MH ID	**Diameter**	**D (m)**	**DS Inv**	**Raw Depth**	**Depth**	**US Inv**	**Raw Depth**	**Depth**	**Avg Depth**	**r**	**h**	**Theta (rad)**	**Area at Depth**	**Pipe Length**	**Volume**
MH24-23	525	0.525	277.45	0.525	0.525	277.55	0.525	0.525	0.525	0.000	0.000	0.000	0.216	33.5	7.25
MH23-22	525	0.525	277.60	0.525	0.525	277.63	0.525	0.525	0.525	0.000	0.000	0.000	0.216	4.8	1.04
MH17-18	675	0.675	277.70	0.675	0.675	277.90	0.675	0.675	0.675	0.000	0.000	0.000	0.358	6.1	2.18
MH18-10	675	0.675	277.95	0.675	0.675	280.11	-0.810	0.000	0.338	0.000	0.338	3.142	0.179	32.5	5.82
MH18-17	675	0.675	277.98	0.675	0.675	278.12	0.675	0.675	0.675	0.000	0.000	0.000	0.358	69.1	24.73
MH17-16	600	0.600	278.14	0.600	0.600	278.16	0.600	0.600	0.600	0.000	0.000	0.000	0.283	11.1	3.14
MH16-MH15	525	0.525	278.24	0.525	0.525	278.26	0.525	0.525	0.525	0.000	0.000	0.000	0.216	7.7	1.67
MH14-MH13	450	0.450	278.50	0.450	0.450	278.61	0.450	0.450	0.450	0.000	0.000	0.000	0.159	39.7	6.31
MH13-MH12	375	0.375	278.66	0.375	0.375	278.73	0.375	0.375	0.375	0.000	0.000	0.000	0.110	16.4	1.81
MH12-CBMH11	300	0.300	278.80	0.300	0.300	279.12	0.180	0.180	0.240	0.090	0.060	1.855	0.061	31.7	1.92

Total Pipe Storage Available = **55.87** **m^3**

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Reach St. Uxbridge

Quantity Control Analysis

Summary of Quantity Control Measures

Quantity Control Required	**595.4**	**m3**

Proposed Storm Chamber Storage	591.5	m3
Proposed Manhole Storage	31.54	m3
Proposed Pipe Storage	55.87	m3
Total Proposed Storage Volume	**678.91**	**m3**

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Quantity Control Analysis - Orifice Sizing

ORIFICE 1: 5 YEAR STORM VERTICAL ORIFICE PLATE

Max Allowable Flow	**0.221**	m^3/s
H_{max}	278.30	m
Pipe Invert (Orifice #1 Inv)	277.46	m
C	0.62	
Head	0.73	m
Orifice #1 Diameter	**219**	**mm**

$$Q = CA\sqrt{2gh}$$

Q = (0.620) (0.038) (2 x 9.81 x 0.73 m)
Q = 0.088 m^3/s

The design 5-year flow is less than the allowable, therefore the Orifice 1 sizing is acceptable.

ORIFICE 2: 100 YEAR STORM VERTICAL ORIFICE PLATE

Flow Released through Orlfice 1 at 100 Year Ponding Elevation:

H_{max}	279.30	m
Pipe Invert (Orifice #1 Inv)	277.46	m
C	0.62	
Head	1.73	m
Diameter	**219**	**mm**

$$Q = CA\sqrt{2gh}$$

Q = (0.620) (0.038) (2 x 9.81 x 1.73 m)
Q = 0.136 m^3/s

Max Total Allowable Flow	0.414	m^3/s
5 Year Control Orifice Flow	0.136	m^3/s
Remaining 100-Year Allowable Flow	0.278	m^3/s
Orifice #2 Inv	278.30	m
Head	0.81	m
Orifice #2 Diameter	**379**	**mm**

Q = (0.620) (0.113) (2 x 9.81 x 0.81 m)
Q = 0.278 m^3/s

The design 100-year flow is equal to the allowable, therefore the Orifice 1 and 2 sizing is acceptable.

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Reach St. Uxbridge
Quantity Control Analysis - Storage-Discharge Curve for VO

Orifice Plates/Tubes		Orifice 1	Orifice 2	
Diameter (m)		**0.219**	0.379	
Invert (m) Sill Elevation (m) Sill @		**277.46**	**278.30**	
Length (m)		N/A	N/A	
Coefficient, C		0.62	0.62	
Volume (m^3)	**Elevation (m)**	**Orifice Plate Flow**	**Orifice Plate Flow**	**Total Orifice Flow**
0.010	277.46	0.000	0.000	0.000
2.840	277.71	0.039	0.000	0.039
48.850	277.96	0.065	0.000	0.065
142.350	278.21	0.083	0.000	0.083
193.000	278.30	0.088	0.000	0.088
284.690	278.46	0.098	0.036	0.133
336.370	278.55	0.102	0.070	0.172
393.220	278.65	0.107	0.113	0.221
427.330	278.71	0.110	0.145	0.256
542.030	278.96	0.122	0.212	0.334
594.200	279.08	0.127	0.238	0.365
614.460	279.13	0.129	0.247	0.377
634.270	279.18	0.131	0.257	0.388
652.070	279.23	0.133	0.266	0.399
678.580	279.30	0.136	0.278	0.414

Weir Flow

$$Q = CLH^{\frac{3}{2}}$$

Where:
C = Weir coefficient
L = Length of grate
H = Head above the weir

Orifice Flow

$$Q = CA\sqrt{2gh}$$

Where:
C = Orifice Coefficient
A = Crossectional area
g = 9.81 m/s^2
h = Head above mid point

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Reach St. Uxbridge
Quantity Control Analysis - Hydrology Model Output Summary

On-site Storage

Storm Event	Retention Volume		Quantity Storage	
	Storage Used (m^3)	Peak Flow (m^3/s)	Storage Used (m^3)	Peak Flow (m^3/s)
5 Year	870.5	0.00	-	-
25 Year	879.0	0.09	28.0	0.05
50 Year	879.0	0.18	95.0	0.07
100 Year	879.0	0.28	193.0	0.09

Downstream Pond

Storm Event	Pre-Development	"Ultimate" Model (Burnside)		"Ultimate" Model (SKA)		Proposed Post Development Model (SKA)	
	Peak Flow	Volume	Peak Flow	Volume	Peak Flow	Volume	Peak Flow
	(m^3/s)	(m^3)	(m^3/s)	(m^3)	(m^3/s)	(m^3)	(m^3/s)
5 Year	0.35	3,757	0.16	3,746	0.16	3,680	0.14
25 Year	0.62	4,946	0.50	4,958	0.50	4,907	0.48
50 Year	0.74	5,416	0.67	5,439	0.68	5,397	0.66
100 Year	0.88	5,912	0.86	5,959	0.87	5,919	0.86

Therefore, since the proposed design results in less storage required than calculated using the Rational Method, and results in the downstream SWM pond volume and peak flow targets being maintained, the provided quantity control are appropriate.

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Reach St. Uxbridge

Quantity Control Analysis - Chamber Stage-Storage Summary

Chamber 1

Elevation	Volume
-	-
278.03	0.00
278.21	37.72
278.46	90.27
278.55	107.31
278.71	138.86
278.96	185.07
279.08	206.17
279.13	214.51
279.18	222.59
279.23	229.10
279.30	240.18

Chamber 2A

Elevation	Volume
277.72	0.00
277.96	18.56
278.21	37.17
278.46	54.57
278.55	62.26
278.71	77.35
278.96	85.76
279.08	91.01
279.13	93.07
279.18	95.04
279.23	96.98
279.30	99.71

Chamber 2B

Elevation	Volume
277.72	0.00
277.96	22.42
278.21	45.91
278.46	67.85
278.55	75.90
278.71	89.37
278.96	108.43
279.08	116.75
279.13	119.93
279.18	123.03
279.23	125.83
279.30	129.93

Chamber 3

Elevation	Volume
-	-
-	-
278.21	0.00
278.46	28.02
278.55	38.73
278.71	57.28
278.96	85.70
279.08	99.00
279.13	104.34
279.18	109.57
279.23	114.70
279.30	121.35

*Volume is calculated by taking the total volume minus the retention volume provided by Stormtech.

APPENDIX F

OTTSWMM Capture Analysis

100-Year Capture Analysis

A capture analysis was conducted using OTTSWMM to ensure that the sufficient major system capture points are provided to safely capture the 100-year storm event on-site and convey all flows to the minor system storage. Catchment imperviousness, road grades, pipe slopes, pipe diameter and catchbasin locations have been assigned appropriately based on the proposed design. The following assumptions were made in the development of the model:

- Low points capture capacities were calculated using MTOD Design chart 4.19
- Rear yard catchbasins were assumed to capture incoming flows at a 1:1 capture rate

The following section of this Appendix (OTTSWMM Output) shows the model generated output, as well as Manning's calculations for the maximum major system flow the model generated on the flattest road segment (0.7%). As seen in the modelling results, there is no spillage at the low point adjacent to the proposed woodlot at the northwest limit of the site (major system segment 202). Therefore, the system has been sufficiently designed to capture all major system flows under a 100-year storm event and the 100-year flow depth is contained within the curbs.

The following modelling is included:

- VNHGL.in
- VNHGL.ott

VNHGL.OTT

P C - O T T S W M M.100

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*
* Ottawa University Storm Water Management Model
*
****
*
* For the IBM-PC/XT
* -----------------
*
* Release 1
* October, 1985
* *****************
*
* Author: A. Kassem & P. Wisner
*
* Distributed by: Andrew Brodie Associates Inc.
*
* Licenced to: Andrew Brodie Associates Inc.
*
****

DISCLAIMER AND LIMITATION OF LIABILITIES

PC-OTTSWMM was carefully prepared and tested to ascertain its
effectiveness and correctness. However, the program is supplied
without expressed or implied warranty of any kind, including any
warranty of fittness for a particular purpose.
In no event will the authors or distributer be liable for any damages
whether incidental, consequential or direct in connection with or
arising from the furnishing, performane or use of the program.

********** BASIC PROGRAM LIMITATIONS**********

1. MAXIMUM NUMBER OF COMPUTATIONAL TIME STEPS (NDELTC) IN CARD GROUP 1B = 50
2. MAXIMUM NUMBER OF TIME INCREMENTS FOR RAINFALL HYETOGRAPH (NDELTR) IN CARD GROUP 2A = 100
3. MAXIMUM NUMBER OF PIPES, INCLUDING THE NUMBER OF OUTLETS FROM THE MINOR SYSTEM IN CARD GROUP 3B = 100
4. MAXIMUM NUMBER OF STORAGE UNITS FOR MINOR SYSTEM (UNDERGROUND STORAGE) IN CARD GROUP 4 = 5
5. MAXIMUM NUMBER OF STREET SEGMENT TYPES, FOR THE COMPUTATION OF RATING CURVES(NSSEG) IN CARD GROUP 5A = 10
6. MAXIMUM NUMBER OF PAIR OF POINTS (QAPP(J,I), QCAP(J,I)) DEFINING INLET CAPTURE IN CARD GROUP 6C = 10
7. MAXIMUM NUMBER OF STREET SEGMENTS, INCLUDING OUTLETS FROM THE MAJOR SYSTEM IN CARD GROUP 7 = 100
8. MAXIMUM NUMBER OF STORAGE UNITS FOR MAJOR SYSTEM IN CARD GROUP 8 = 5

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         9.   MAXIMUM NUMBER OF SUBCATCHMENTS IN CARD GROUP 9E = 100
        10.   THERE CAN BE NO MORE THAN 5 UPSTREAM PIPES CONNECTING TO A PIPE JUNCTION.
        11.   THERE CAN BE NO MORE THAN 5 UPSTREAM STREET SEGMENT CONNECTING
              TO A STREET JUNCTION.
        12.   THE MAXIMUM NUMBER OF OUTLETS FROM THE PIPE SYSTEM IS 5
              (INCLUDING OUTLETS INTO STORAGES).
              THERE ARE NO RESTRICTIONS ON THE NUMBER OF OUTLETS
              FROM THE MAJOR SYSTEM.
        13.   AN OUTLET FROM THE MINOR SYSTEM (FREE OUTFLOW OR OUTLET INTO
              STORAGE) CAN BE CONNECTED TO ONLY ONE UPSTREAM PIPE.
        14.   AN OUTLET FROM THE MAJOR SYSTEM(FREE OUTLET OR OUTLET
              INTO STORAGES) CAN BE CONNECTED TO ONLY ONE UPSTREAM STREET SEGMENT.
        15.   THE RATIO BETWEEN THE TIME INCREMENT FOR CALCULATION
              (NDELTC)/TIME INCREMENT OF RAINFALL HYETOGRAPH(NDELTR) SHOULD
              BE AN INTEGER (GREATER THAN OR EQUAL 1).
        16.   THE MAXIMUM NUMBER OF POINTS(NJC) DESCRIBING THE INLET CAPTURE
              CURVE = 50.
        17.   THE MAXIMUM NUMBER OF POINTS(NSP1(I)) DESCRIBING THE
              MINOR SYSTEM STORAGE-DISCHARGE CURVE = 20
        18.   THE MAXIMUM NUMBER OF UNIT AREA HYDROGRAPH TYPES(NUAH) = 5
```

```
****************************************************************************************************
*                                                                                                  *
*U N I V E R S I T Y   O F   O T T A W A   S T O R M   W A T E R   M A N A G E M E N T   M O D E L*
*                                                                                                  *
*                                          O T T S W M M                                           *
*                                                                                                  *
****************************************************************************************************
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 Andrew Brodie Associates Inc.

  Venetian - Town of Uxbridge 17:386
  100 year Storm-Chicago 4 hour storm


TIME INCREMENT FOR CALCULATION      10.00  MINUTES

NUMBER OF COMPUTATIONAL STEPS          24

LIMITING CAPACITY OF INLETS           37.80  L/S

TOTAL SIMULATION TIME              230.00  MINUTES

PIPE SIZES WILL BE REVISED FOR FREE SURFACE FLOW CONDITIONS
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  100 year Storm-Chicago 4 hour storm


       RAINFALL DATA

     TIME      RAINFALL                                   RAINFALL INTENSITY (MM/HR)
     (MIN)     (MM/HR)

                                         .43E+01   .39E+02   .79E+02   .12E+03   .16E+03    .20E+03
                                        I---------I---------I---------I---------I----------I
        .00      4.96                   I**                                                I
      10.00      5.70                   I**                                                I
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```
  20.00      6.76                      I**                                                 I
  30.00      8.37                      I***                                                I
  40.00     11.15                      I***                                                I
  50.00     17.24                      I*****                                              I
  60.00     42.97                      I***********                                        I
  70.00    200.60                      I**************************************************I
  80.00     56.98                      I***************                                    I
  90.00     29.02                      I********                                           I
 100.00     19.60                      I*****                                              I
 110.00     14.91                      I****                                               I
 120.00     12.10                      I****                                               I
 130.00     10.22                      I***                                                I
 140.00      8.88                      I***                                                I
 150.00      7.87                      I***                                                I
 160.00      7.08                      I**                                                 I
 170.00      6.45                      I**                                                 I
 180.00      5.93                      I**                                                 I
 190.00      5.49                      I**                                                 I
 200.00      5.12                      I**                                                 I
 210.00      4.80                      I**                                                 I
 220.00      4.52                      I**                                                 I
 230.00      4.28                      I**                                                 I
                                       I---------I---------I---------I---------I----------I
                                        .43E+01   .39E+02   .79E+02   .12E+03   .16E+03    .20E+03
```

RAINFALL DURATION 240.00 MINUTES

Andrew Brodie Associates Inc.

Venetian - Town of Uxbridge 17:386
100 year Storm-Chicago 4 hour storm

MAJOR SYSTEM RATING CURVE

NO. OF GEOMETRIES 10

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
1	3.250	.020	50.0	.013	.007	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.02	1.52
60.96	.14	3.05
91.44	.42	5.32

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)

2	3.250	.020	50.0	.013	.010	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.03	1.52
60.96	.17	3.05
91.44	.50	5.32

↟

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
3	3.250	.020	50.0	.013	.011	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.03	1.52
60.96	.17	3.05
91.44	.53	5.32

↟

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
4	3.250	.020	50.0	.013	.012	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.03	1.52
60.96	.18	3.05
91.44	.56	5.32

↟

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
5	3.250	.020	50.0	.013	.013	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.03	1.52
60.96	.19	3.05
91.44	.58	5.32

♠

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
6	3.250	.020	50.0	.013	.019	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.04	1.52
60.96	.23	3.05
91.44	.69	5.32

♠

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
7	3.250	.020	50.0	.013	.020	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.04	1.52
60.96	.23	3.05
91.44	.71	5.32

♠

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
8	3.250	.020	50.0	.013	.025	.020	.025	.095

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.04	1.52
60.96	.26	3.05
91.44	.79	5.32

♠

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
9	1.250	.330	.0	.025	.044	.330	.025	.300

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.00	.09
60.96	.01	.18
91.44	.03	.28
121.92	.07	.37
152.40	.13	.46
182.88	.21	.55
213.36	.31	.65
243.84	.44	.74
274.32	.61	.83

♠

TYPE	PAVEMENT WIDTH (M)	PAVEMENT CROSS SLOPE (M/M)	HEIGHT OF CURB (MM)	MANNING (N)	LONG. SLOPE (M/M)	SHOULDER CROSS SLOPE (M/M)	SHOULDER ROUGHNESS N	MAXIMUM FLOW DEPTH (M)
10	1.250	.330	.0	.025	.020	.330	.025	.300

RATING CURVE

DEPTH (MM)	FLOW (CMS)	SPREAD (M)
.00	.00	.00
30.48	.00	.09
60.96	.01	.18
91.44	.02	.28
121.92	.05	.37
152.40	.09	.46
182.88	.14	.55
213.36	.21	.65
243.84	.30	.74
274.32	.41	.83

♠

INLET DATA

NO. OF INLET TYPES 3

INLET TYPE 1

NO. OF POINTS 14

APPROCH FLOW (L/S)	INLET FLOW (L/S)
.00	.00
14.10	6.80
28.30	8.80
42.50	12.10
56.70	14.60
85.00	18.50
133.30	21.80
141.60	24.90
170.00	27.60
198.30	29.90
226.60	31.70
255.00	33.70
283.30	36.00
311.60	37.80

INLET TYPE 2

NO. OF POINTS 14

APPROCH FLOW (L/S)	INLET FLOW (L/S)
.00	.00
14.10	13.60
28.30	17.60
42.50	24.10
56.70	29.20
85.00	37.10
133.30	43.60
141.60	49.90
170.00	55.20
198.30	59.80
226.60	63.50
255.00	67.40
283.30	72.00
311.60	75.60

INLET TYPE 3

NO. OF POINTS 8

APPROCH FLOW (L/S)	INLET FLOW (L/S)
.00	.00
28.30	28.30
84.90	84.90
113.20	113.20
141.50	141.50
169.80	169.80
2830.00	2830.00
5660.00	5660.00

100 year Storm-Chicago 4 hour storm

SURFACE PONDING DATA

TYPE	CONSTANT OUTFLOW CFS,L/S	MAXIMUM STORAGE FT3 , L
4	150.00	4470.0
5	720.00	41879.0
6	10.00	475.0
7	19.00	488.0

MAJOR SYSTEM DATA

NO.	STREET SEGMENT	D/S SEGMENT	LENGTH (M)	TYPE	NO. OF C.B.	INLET TYPE	INLET RESTRIC.	CONNECTING PIPE	STORAGE ID NO.	FLOW HISTORY
1	201	600	30.2	4	2	4	150.00	12	0	YES
2	202	601	78.5	5	2	5	1720.00	14	0	YES
3	203	202	32.2	1	2	1	37.80	14	0	NO
4	204	203	91.3	7	2	6	10.00	15	0	YES
5	205	202	80.9	8	2	1	37.80	14	0	NO
6	206	205	22.9	2	2	1	37.80	3	0	NO
7	207	206	47.2	6	2	7	19.00	6	0	YES
8	208	204	41.8	6	2	1	37.80	3	0	NO
9	209	207	89.9	6	2	1	37.80	3	0	NO
10	210	208	89.6	3	2	1	37.80	3	0	NO
11	401	603	41.4	9	2	3	5660.00	16	0	NO
12	402	604	34.5	10	2	3	5660.00	28	0	NO
13	404	614	59.7	10	2	3	5660.00	23	0	NO
14	405	606	35.2	10	2	3	5660.00	19	0	NO
15	406	608	34.5	9	2	3	5660.00	20	0	NO
16	407	609	39.6	9	2	3	5660.00	21	0	NO
17	408	611	19.5	10	2	3	5660.00	26	0	NO
18	409	612	27.5	10	2	3	5660.00	25	0	NO
19	411	613	13.7	10	2	3	5660.00	24	0	NO
20	412	610	16.3	10	2	3	5660.00	27	0	NO
21	413	607	10.6	10	2	3	5660.00	22	0	NO
22	414	605	25.9	10	2	3	5660.00	18	0	NO

TOTAL NUMBER OF STREET SEGMENTS 22

TOTAL LENGTH OF MAJOR SYSTEM 962.90

OUTLETS FROM MAJOR SYSTEM

OUTLET NO.

600	FREE FLOW OUTLET
601	FREE FLOW OUTLET
603	FREE FLOW OUTLET
604	FREE FLOW OUTLET
614	FREE FLOW OUTLET
606	FREE FLOW OUTLET
608	FREE FLOW OUTLET
609	FREE FLOW OUTLET
611	FREE FLOW OUTLET
612	FREE FLOW OUTLET
613	FREE FLOW OUTLET
610	FREE FLOW OUTLET
607	FREE FLOW OUTLET

605 FREE FLOW OUTLET

TOTAL NUMBER OF OUTLETS FROM MAJOR SYSTEM = 14

Andrew Brodie Associates Inc.

Venetian - Town of Uxbridge 17:386
100 year Storm-Chicago 4 hour storm

SUB-CATCHMENT DATA

MAX. INFILTRATION 76.20 MM./HR.
MIN. INFILTRATION 13.20 MM./HR.
DECAY RATE .001150 1/SEC

	SUBAREA NO.	STREET SEGMENT	AREA (HA.)	IMP. (%)	MANNING (N) (IMP.)	MANNING (N) (PERV.)	SLOPE (M/M)	WIDTH (M)	DEP. STOR. IMP. (MM)	DEP. STOR. PERV. (MM)	FLOW HISTORY
1	101	201	.2	79.5	.013	.250	.032	51.	1.570000	4.650000	NO
2	102	202	.4	72.4	.013	.250	.029	152.	1.570000	4.650000	NO
3	103	203	.0	99.0	.013	.250	.013	32.	1.570000	4.650000	NO
4	104	204	.2	77.9	.013	.250	.033	91.	1.570000	4.650000	NO
5	105	205	.1	73.0	.013	.250	.037	81.	1.570000	4.650000	NO
6	106	206	.0	99.0	.013	.250	.010	23.	1.570000	4.650000	NO
7	107	207	.1	75.0	.013	.250	.037	47.	1.570000	4.650000	NO
8	108	208	.1	70.0	.013	.250	.033	42.	1.570000	4.650000	NO
9	109	209	.1	72.4	.013	.250	.034	90.	1.570000	4.650000	NO
10	110	210	.2	70.0	.013	.250	.034	90.	1.570000	4.650000	NO
11	301	401	.1	69.0	.013	.250	.030	41.	1.570000	4.650000	NO
12	302	402	.1	69.0	.013	.250	.020	35.	1.570000	4.650000	NO
13	304	404	.3	72.5	.013	.250	.029	117.	1.570000	4.650000	NO
14	305	405	.1	70.0	.013	.250	.036	35.	1.570000	4.650000	NO
15	306	406	.1	70.0	.013	.250	.050	35.	1.570000	4.650000	NO
16	307	407	.1	70.0	.013	.250	.039	40.	1.570000	4.650000	NO
17	308	408	.0	70.0	.013	.250	.050	20.	1.570000	4.650000	NO
18	309	409	.1	70.0	.013	.250	.038	28.	1.570000	4.650000	NO
19	311	411	.0	75.0	.013	.250	.020	14.	1.570000	4.650000	NO
20	312	412	.0	70.0	.013	.250	.041	16.	1.570000	4.650000	NO
21	313	413	.1	70.0	.013	.250	.025	11.	1.570000	4.650000	NO
22	314	414	.0	70.0	.013	.250	.025	26.	1.570000	4.650000	NO

* INFLOW HYDROGRAPH INPUT DIRECTLY
** INFLOW HYDROGRAPH INPUT DIRECTLY IN TERMS OF FLOW PER UNIT AREA

TOTAL DRAINAGE AREA 2.30 HECTARES

NUMBER OF SUBAREAS 22

TOTAL NUMBER OF INLETS 44

DENSITY OF INLETS 19.16 C.B./HECTARE

AVERAGE DISTANCE BETWEEN INLETS 43.77 M

Andrew Brodie Associates Inc.

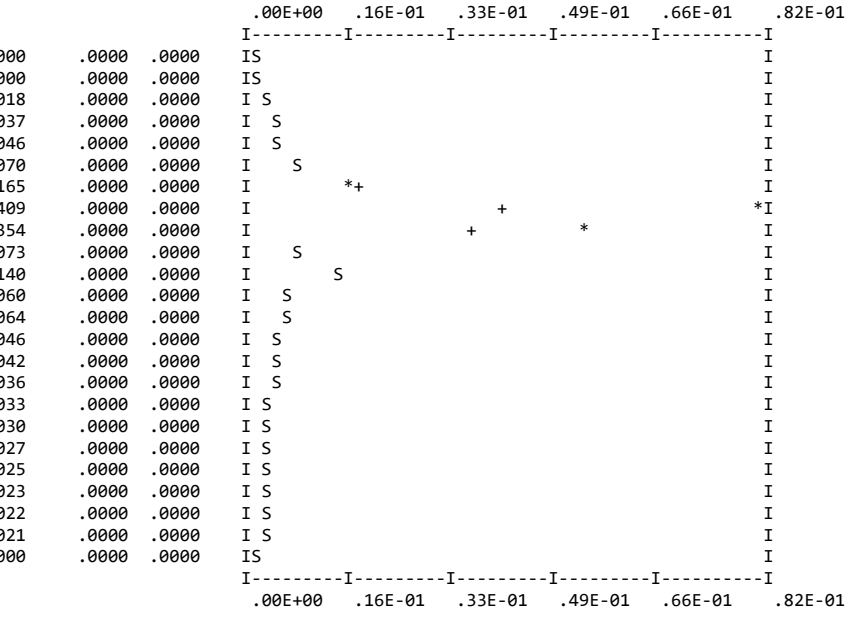
Venetian - Town of Uxbridge 17:386
100 year Storm-Chicago 4 hour storm

MAJOR SYSTEM DETAILED SIMULATION RESULTS

MAJOR SYSTEM SEGMENT NO. 201

TIME (MIN)	INFLOW (CMS)	DEPTH (M)	OUTFLOW (CMS)	STORAGE (M3)
.00	.0000	.0000	.0000	.0000
10.00	.0000	.0000	.0000	.0000
20.00	.0017	.0018	.0000	.0000
30.00	.0035	.0037	.0000	.0000
40.00	.0043	.0046	.0000	.0000
50.00	.0066	.0070	.0000	.0000
60.00	.0157	.0165	.0000	.0000
70.00	.0819	.0409	.0000	.0000
80.00	.0540	.0354	.0000	.0000
90.00	.0069	.0073	.0000	.0000
100.00	.0133	.0140	.0000	.0000
110.00	.0057	.0060	.0000	.0000
120.00	.0061	.0064	.0000	.0000
130.00	.0044	.0046	.0000	.0000
140.00	.0040	.0042	.0000	.0000
150.00	.0035	.0036	.0000	.0000
160.00	.0031	.0033	.0000	.0000
170.00	.0028	.0030	.0000	.0000
180.00	.0026	.0027	.0000	.0000
190.00	.0024	.0025	.0000	.0000
200.00	.0022	.0023	.0000	.0000
210.00	.0021	.0022	.0000	.0000
220.00	.0020	.0021	.0000	.0000
230.00	.0000	.0000	.0000	.0000

* INFLOW (CMS)
+ DEPTH (M)

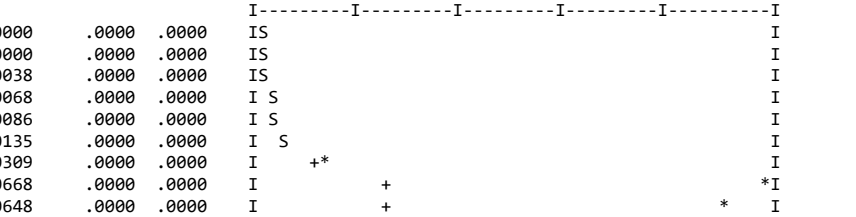


MAJOR SYSTEM DETAILED SIMULATION RESULTS

MAJOR SYSTEM SEGMENT NO. 202

TIME (MIN)	INFLOW (CMS)	DEPTH (M)	OUTFLOW (CMS)	STORAGE (M3)
.00	.0000	.0000	.0000	.0000
10.00	.0000	.0000	.0000	.0000
20.00	.0038	.0038	.0000	.0000
30.00	.0068	.0068	.0000	.0000
40.00	.0085	.0086	.0000	.0000
50.00	.0134	.0135	.0000	.0000
60.00	.0323	.0309	.0000	.0000
70.00	.2659	.0668	.0000	.0000
80.00	.2398	.0648	.0000	.0000
90.00	.0667	.0374	.0000	.0000
100.00	.0420	.0327	.0000	.0000
110.00	.0178	.0180	.0000	.0000
120.00	.0161	.0163	.0000	.0000
130.00	.0107	.0108	.0000	.0000
140.00	.0097	.0098	.0000	.0000
150.00	.0082	.0083	.0000	.0000
160.00	.0073	.0074	.0000	.0000
170.00	.0066	.0067	.0000	.0000
180.00	.0061	.0061	.0000	.0000
190.00	.0056	.0057	.0000	.0000

* INFLOW (CMS)
+ DEPTH (M)



```
 200.00    .0052  .0052     .0000  .0000    IS                                          I
 210.00    .0049  .0049     .0000  .0000    IS                                          I
 220.00    .0046  .0046     .0000  .0000    IS                                          I
 230.00    .0011  .0011     .0000  .0000    IS                                          I
                                            I---------I---------I---------I---------I----------I
                                             .00E+00   .53E-01   .11E+00   .16E+00   .21E+00    .27E+00
```


MAJOR SYSTEM DETAILED SIMULATION RESULTS

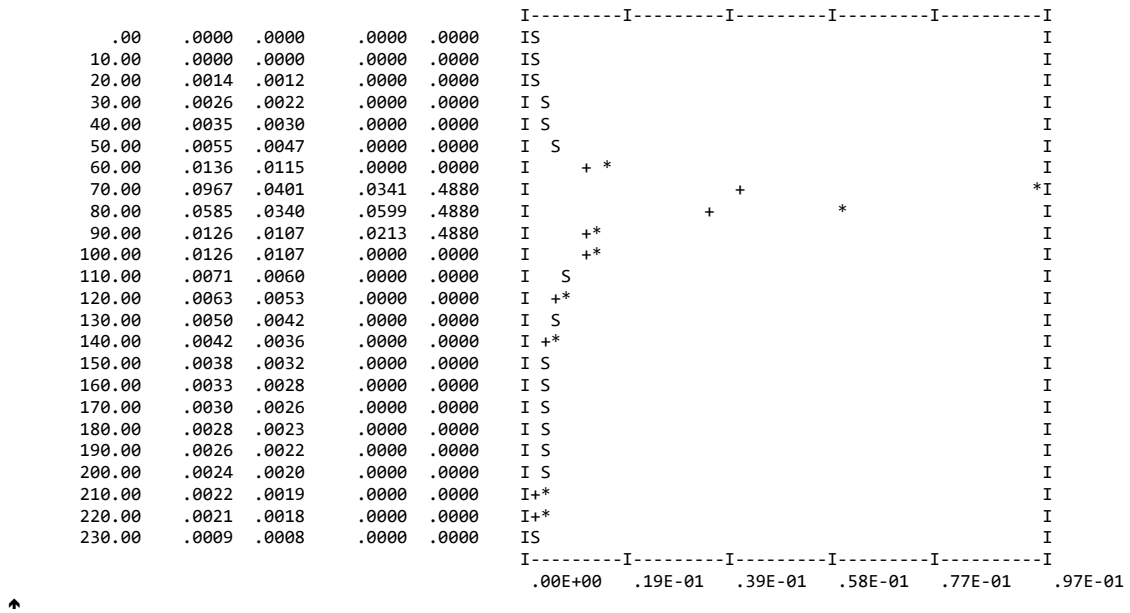
MAJOR SYSTEM SEGMENT NO. 204

```
 TIME    INFLOW  DEPTH   OUTFLOW STORAGE                     * INFLOW (CMS)
 (MIN)   (CMS)    (M)     (CMS)  (M3)                       + DEPTH (M)

                                             .00E+00   .29E-01   .58E-01   .87E-01   .12E+00    .14E+00
                                            I---------I---------I---------I---------I----------I
    .00    .0000  .0000     .0000  .0000    IS                                          I
  10.00    .0000  .0000     .0000  .0000    IS                                          I
  20.00    .0022  .0018     .0000  .0000    IS                                          I
  30.00    .0038  .0031     .0000  .0000    I S                                         I
  40.00    .0049  .0041     .0000  .0000    I S                                         I
  50.00    .0081  .0067     .0000  .0000    I  S                                        I
  60.00    .0203  .0167     .0000  .4604    I     + *                                   I
  70.00    .1443  .0470     .0701  .4750    I               +                          *I
  80.00    .0881  .0384     .1096  .4750    I             +               *             I
  90.00    .0151  .0125     .0520  .4750    I    +*                                     I
 100.00    .0187  .0154     .0134  .4750    I     +*                                    I
 110.00    .0084  .0069     .0053  .4750    I  S                                        I
 120.00    .0093  .0077     .0009  .4750    I  +*                                       I
 130.00    .0061  .0051     .0000  .0000    I +*                                        I
 140.00    .0060  .0049     .0000  .0000    I +*                                        I
 150.00    .0049  .0041     .0000  .0000    I S                                         I
 160.00    .0046  .0038     .0000  .0000    I S                                         I
 170.00    .0041  .0034     .0000  .0000    I S                                         I
 180.00    .0038  .0031     .0000  .0000    I S                                         I
 190.00    .0035  .0029     .0000  .0000    I+*                                         I
 200.00    .0032  .0027     .0000  .0000    I+*                                         I
 210.00    .0030  .0025     .0000  .0000    I+*                                         I
 220.00    .0028  .0023     .0000  .0000    IS                                          I
 230.00    .0008  .0007     .0000  .0000    IS                                          I
                                            I---------I---------I---------I---------I----------I
                                             .00E+00   .29E-01   .58E-01   .87E-01   .12E+00    .14E+00
```


MAJOR SYSTEM DETAILED SIMULATION RESULTS

MAJOR SYSTEM SEGMENT NO. 207

```
 TIME    INFLOW  DEPTH   OUTFLOW STORAGE                     * INFLOW (CMS)
 (MIN)   (CMS)    (M)     (CMS)  (M3)                       + DEPTH (M)

                                           .00E+00   .19E-01   .39E-01   .58E-01   .77E-01    .97E-01
```



Andrew Brodie Associates Inc.

Venetian - Town of Uxbridge 17:386
100 year Storm-Chicago 4 hour storm

MAJOR SYSTEM

SUMMARY OF SIMULATION RESULTS

	SEGMENT NO	MAX. FLOW (CMS)	MAX. DEPTH (MM)	MAX. CAPTURE (L/S)	INLET RESTRICTION	MAX. STORAGE (M3)
1	201	.0819	41.	68.7	NO	.0000
2	202	.2659	67.	253.9	NO	.0000
3	203	.1164	55.	29.6	NO	.0000
4	204	.1443	47.	10.0	NO	.4750
5	205	.0729	35.	21.4	NO	.0000
6	206	.0642	39.	19.3	NO	.0000
7	207	.0967	40.	19.0	NO	.4880
8	208	.0804	37.	23.1	NO	.0000
9	209	.0564	34.	17.6	NO	.0000
10	210	.0762	41.	22.1	NO	.0000
11	401	.0315	90.	31.5	NO	.0000
12	402	.0249	95.	24.8	NO	.0000
13	404	.1147	169.	114.5	NO	.0000
14	405	.0480	123.	47.9	NO	.0000
15	406	.0253	81.	25.3	NO	.0000
16	407	.0250	81.	25.0	NO	.0000
17	408	.0146	76.	14.6	NO	.0000
18	409	.0234	93.	23.4	NO	.0000
19	411	.0054	51.	5.4	NO	.0000
20	412	.0087	64.	8.7	NO	.0000
21	413	.0221	92.	22.1	NO	.0000
22	414	.0121	71.	12.1	NO	.0000

*** SIMULATION ENDED NORMALLY ***

Manning's Calculator **(Right-of way Flow)**

Job Number: **17:386**
Description:

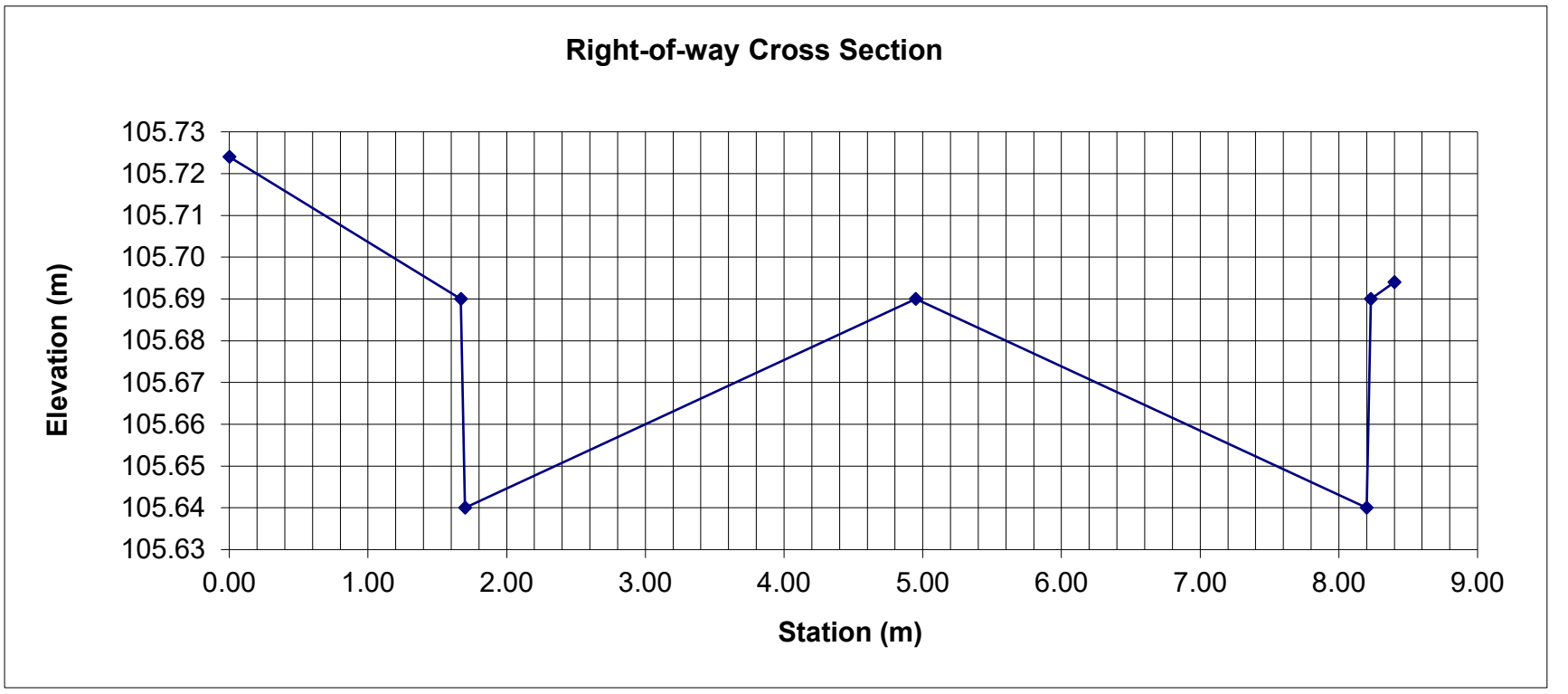
Comparision between the maximum generated OTTSWMM major system flow and ROW capacity of the flattest section of the road in the proposed subdivision

Right-of-way Geometry

			Manning's	
Total ROW width =	8.40	m	0.014	(composite)
Pavement Width =	6.50	m	0.013	
Sidewalk width =	1.50	m	0.013	
Sidewalk BLVD width =	1.70	m	0.035	
Other BLVD width =	0.20	m	0.035	

Road Grade =	0.7000000%
Pavement Cross fall =	2.00%
Sidewalk BLVD slope =	2.00%
Other BLVD slope =	2.00%

Point	Station (m)	Elevation (m)
Sidewalk BLVD	0.00	105.72
Top of Curb	1.67	105.69
Bottom of Curb	1.70	105.64
Centerline	4.95	105.69
Bottom of Curb	8.20	105.64
Top of Curb	8.23	105.69
Other BLVD	8.40	105.69



Flow Capacity

Right-of-way Flow

Area =	0.414	m^2
Wetted Perimeter =	8.640	m
Hydraulic Radius =	0.048	m
Velocity =	0.786	m/s
Flow =	**0.33**	**m^3/s**